WPCTV3000

Universal Wireless Display and Screen Sharing Adapter

User Manual

Table of Contents

Chapter 1: Product Introduction 4
1-1 Package Contents 4
(1) PC2TV 5
(2) Media Streaming 5
(3) Miracast 6
(4) i-Play 6
1-3 Highlights 6
1-4 Hardware Setup/Installation 7
Chapter 2: Description of Functions 9
2-1 Using WPCTV3000 with NScreenShare 10
2-1-1 Basic Usage for windows 10
2-1-1-1 Launching NScreenShare 11
2-1-1-2 User Interface of NScreenShare 13
2-1-2 Basic Usage for Mac 18
2-1-2-1 Launching NScreenShare 20
2-1-2-2 User Interface of NScreenShare 23
2-2 Using WPCTV3000 with Miracast 28
2-2-1 Launching Miracast 28
2-2-2 Basic Usage for Miracast 210
2-3 Using WPCTV3000 with i-Play 37
2-3-1 Launching i-Play for file streaming 37
2-4 Using WPCTV3000 for Media Streaming 41
2-4-1 Basic Usage for Airfun Utility for APPS 41
2-4-2 Basic Usage for Airfun Utility for Windows software 43
2-4-3 Advanced Setup 45
2-4-3-1 Network Setting 47
2-4-3-2 Audio Setting 49
2-4-3-3 Video Setting 50
2-4-3-4 System Setting 50
Chapter 3: Router Application 51
Appendex A: Support Resolution 63
Appendex B: Supported Media Formats 63

Video Format 63
Audio Format 63
Photo Format 64
Appendex C: Miracast-Ready List 64

Chapter 1: Product Introduction

Thank you for choosing the Diamond Universal Wireless Display and Screen Sharing Adapter.

1-1 Package Contents

(1) WPCTV3000 Universal Wireless HDMI Receiver
(2) AC Adapter
(3) CD-ROM (user guide and software applications)
(4) Quick Installation Guide
(5) HDMI (M) to HDMI (M) Cable

1-2 Hardware Recommendation

(1) PC2TV (Mirrors your desktop wirelessly to a HDTV or Projector)

The WPCTV3000 is designed to mirror your desktop screen from a PC (Windows 7 /Window 8/ Win 8.1) & Mac (over 10.6) to your HDTV. (whatever you see on your PC desktop is what you will see on your TV)

PC or Notebook

- CPU: Core 2 Duo 2.0 GHz or better
- Memory: 2.0 GB or better
- Network: 802.11g/n Wi-Fi and/or 100/1000 Mbps Ethernet

(2) Media Streaming

Stream photo/music/video from your PC, smart phone or laptop or play back video/Music/photo form USB up to 1080p HD.

PC or Notebook

- CPU: 1.6 GHz or better
- Memory: 1.0 GB or better
- Network: 802.11g/n Wi-Fi and/or 100/1000 Mbps Ethernet

Smart phone

- CPU: 800 MHz or better
- Memory: 256 MB or better
- Network: 802.11g/n Wi-Fi or better

Tablet-PC

- CPU: 600 MHz or better
- Memory: 256 MB or better
- Network: 802.11g/n Wi-Fi or better

Recommend software

- PC: Windows Media Player, AirFun
- Android OS: AirFun
- iOS: AirFun、iMediaShare

(3) Miracast

Screen mirroring from Miracast-ready smart phone/tablet/NB through Miracast technology up to 1080p HD.

(4) i-Play

Stream video/photo content from iPhone or iPad to your TV

1-3 Highlights

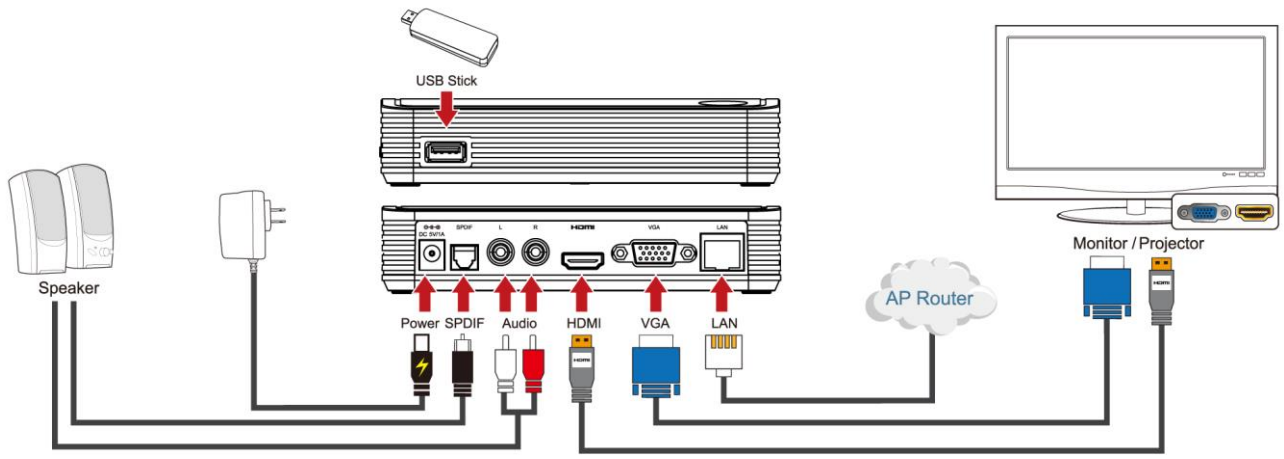
The WPCTV3000 enables you to mirror whatever is displayed on your Windows PC/laptop, Mac, Smart phone and or tablet to your HDTV, wirelessly, up to 1080p video.

Major features:

- 802.11 a/b/g/n Wireless compatibility
- 802.11n 2.4GHz & 5GHz dual band standards
- Supports both Wireless and Ethernet connectivity
- HDMI/VGA connection
- Wireless multimedia streaming up to Full HD 1080p
- PC contents, movies, photos and more all on your big screen
- Compatible with Windows, Apple and Android devices
- Network security

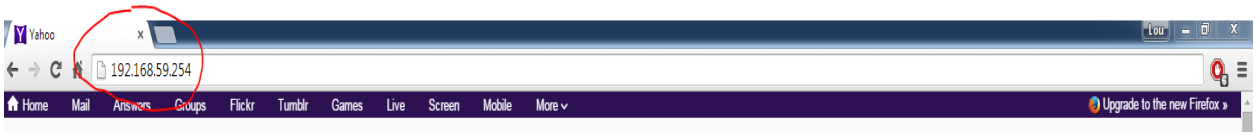
1-4 Hardware Setup/Installation

(1) Connect your WPCTV3000 device



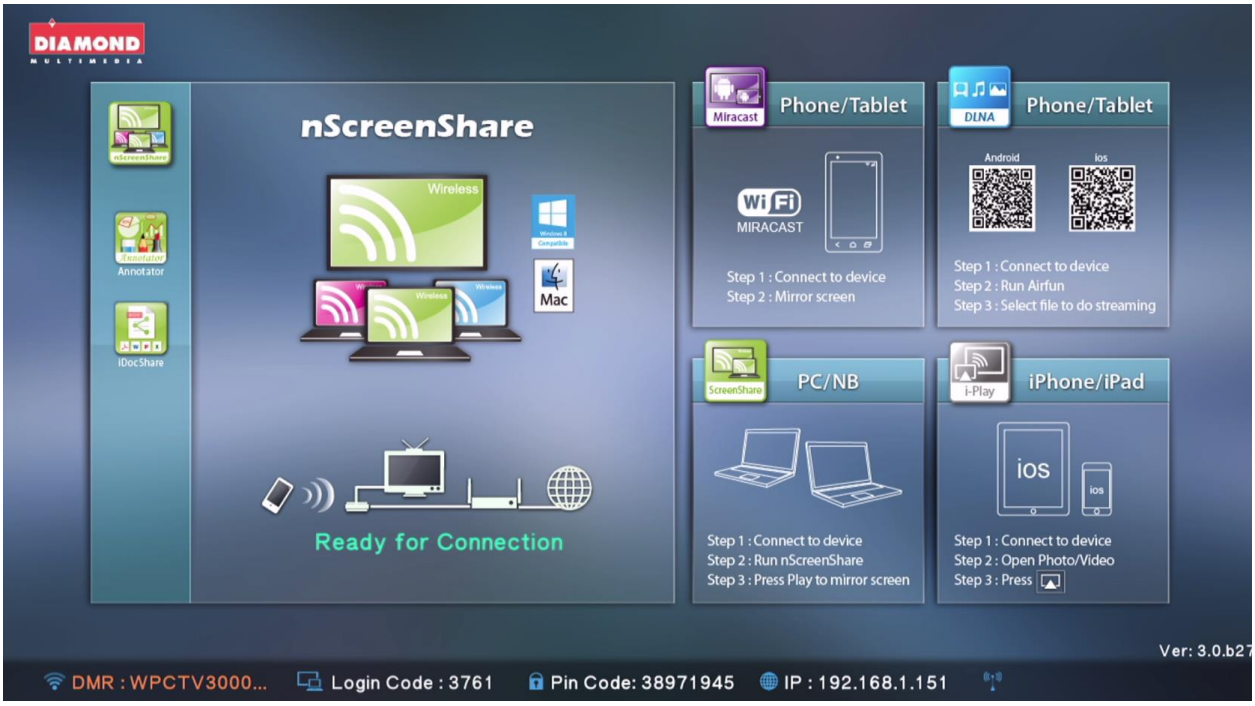
(2) Connect the power adapter and push power button to turn on the WPCTV3000.

After few seconds, when you see the below screen: the device is assigned an IP address, the system is in standby mode and ready to do file streaming or screen mirroring from your device. Please connect to WPCTV3000 via Wi-Fi. ***Note: you can user your computers web browser to access advance setup configurations by typing in the following IP address in the address bar of the browser:***



This will give you the option to connect the WPCTV3000 to your home network and other advanced settings

Note: To turn off the WPCTV3000 push the power button twice.



(3)If your device is already connected to the router via wired Ethernet, disconnect the cable and press the power switch twice to turn it off and once to turn it back on, this will put the device back into wireless mode.

Chapter 2: Description of Functions

The WPCTV3000 is a highly integrated all-in-one receiver, featuring instant and direct peer-to-peer connection. When you see the screen below, the box is ready for connection.

Miracast: Screen mirroring from smart phone, or tablet through (Wi-Fi Miracast technology)

NScreenShare: The software providing screen mirroring from PC and laptop to bigger screen.

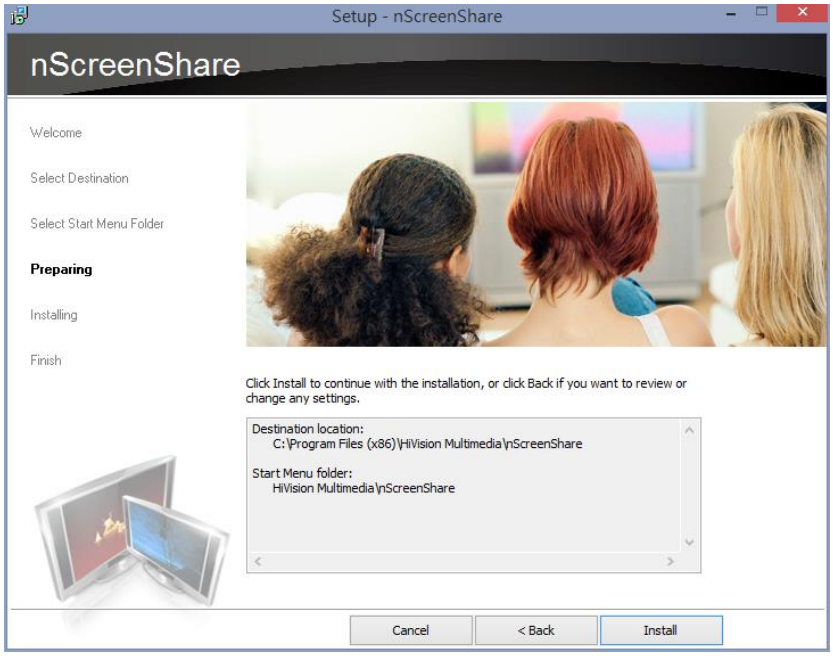
DLNA: Stream photo/music/video from your PC, smart phone or laptop.

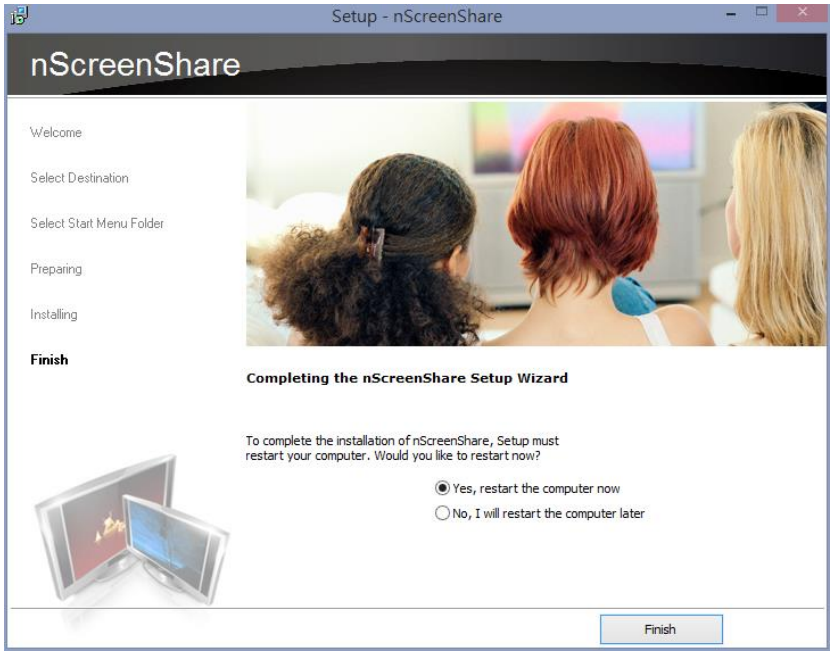
i-Play: Stream photo/video from your iPhone or iPad.

2-1 Using WPCTV3000 with nScreenShare

2-1-1 Basic Usage of application software for windows

You can install WPCTV3000 nScreenShare application from the provided CD ROM.


Setup - nScreenShare
nScreenShare
Welcome
Select Destination
Select Start Menu Folder
Preparing
Installing
Finish
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files (x86)\HiVision Multimedia\nScreenShare
Start Menu folder:
HiVision Multimedia\nScreenShare
Cancel
< Back
Install


Setup - nScreenShare
nScreenShare
Welcome
Select Destination
Select Start Menu Folder
Preparing
Installing
Finish
Completing the nScreenShare Setup Wizard
To complete the installation of nScreenShare, Setup must restart your computer. Would you like to restart now?
Yes, restart the computer now
No, I will restart the computer later
Finish

2-1-1-1 Launching nScreenShare

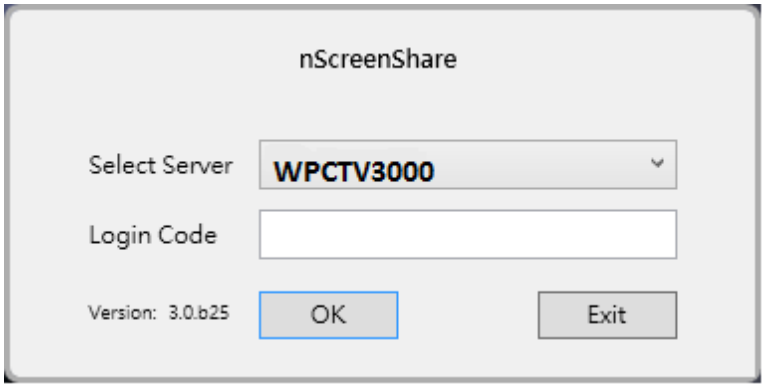
Please follow the steps below to run nScreenShare for windows.

(1) Search and find the device's SSID in Wi-Fi list on your notebook.
(The sample of "device SSID" in the picture is "WPCTV3000")

(2) Connect to this device SSID.

(3) Double click the NScreenShare icon from your desktop.

(3) NScreenShare will auto detect ‘Server IP, please input login code which is displayed on your TV screen.



(5) If login code is correct, application software will appear.

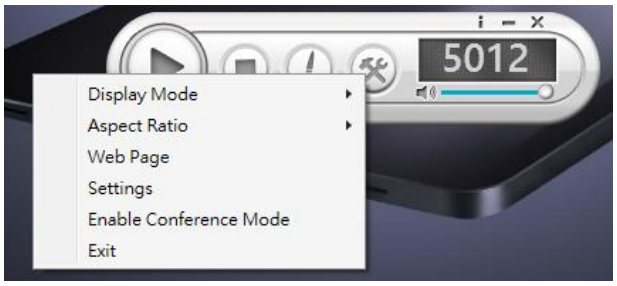
2-1-1-2 User Interface of NScreenShare

Main functions

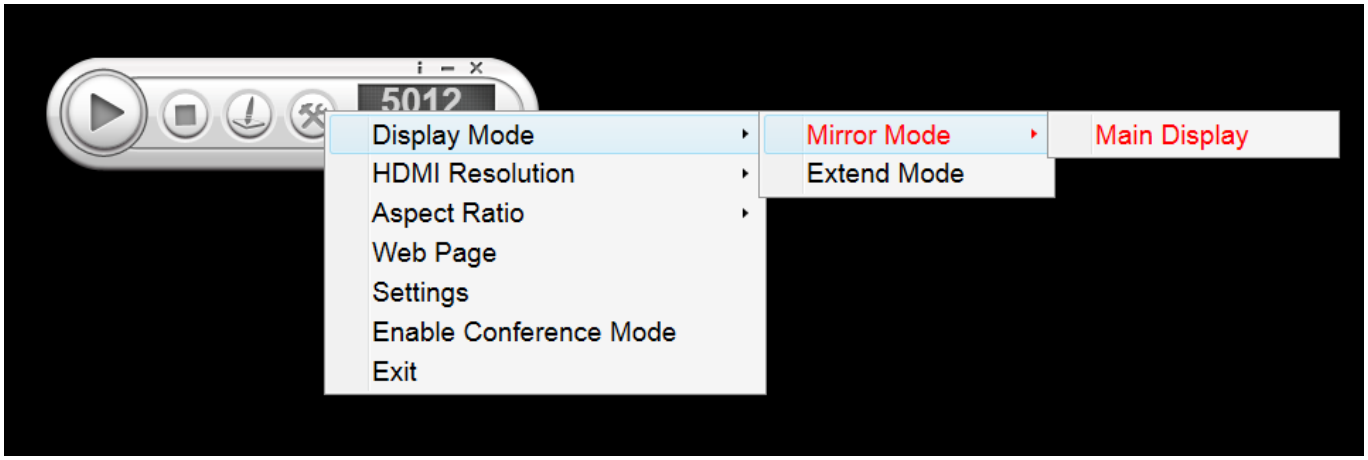
No	Name	Function Description
1	Play/Pause	Start / pause presentation. If paused, a current presentation or stream will freeze.
2	Stop	Stops a current presentation or stream and will go back to instruction page.
3	Annotator	To start the new sheet for notes taking or on the current slide
4	Menu	Access menu list.
5	Login code	Show the application login code.
6	Volume	Control the slide bar to change the volume. Press the icon to mute.
7	Information/Minimize/Close	Minimize and close the Application Software window. Information

Menu

You can also click ‘Menu’ button to access menu list.

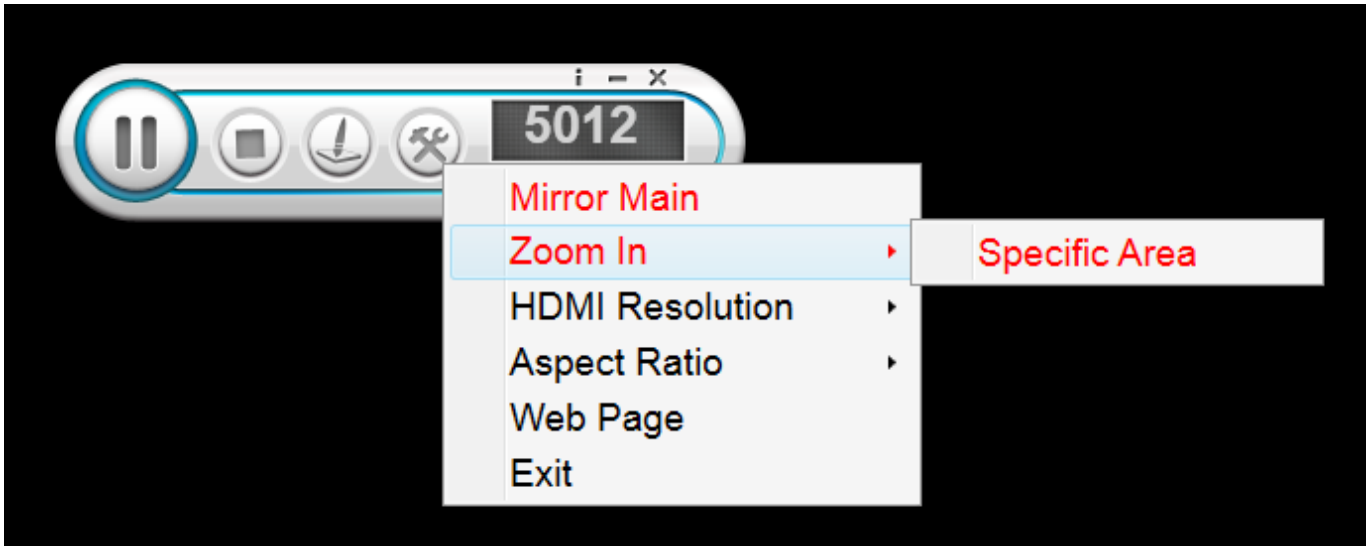


(1) Display Mode



No	Name	Function Description
1	Main Display	Mirror NB/PC display to the Rx monitor.
2	Extend Display	Mirror your extend display to the Rx monitor.

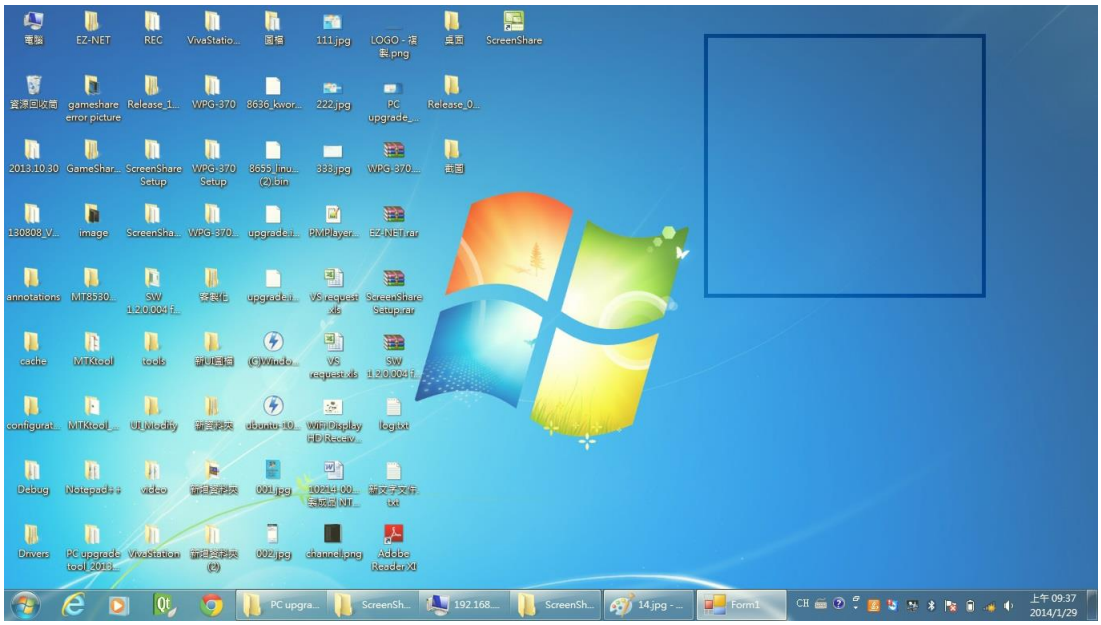
(2) Zoom In (This function only can be used when "Main Display" running)



You can decide the region you want to zoom in and display to the monitor.

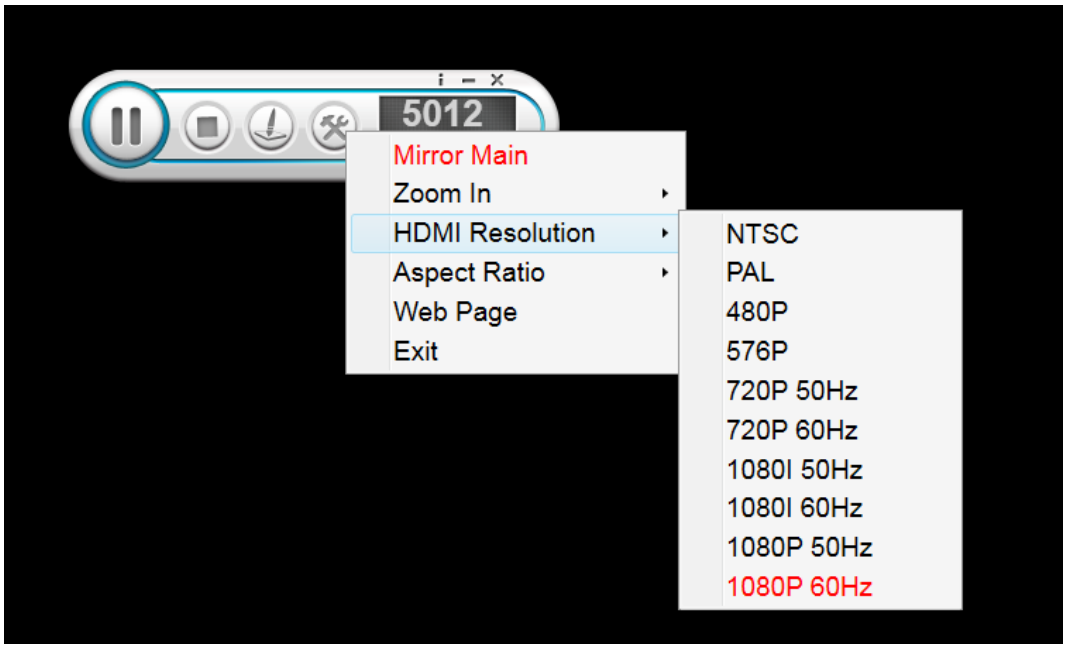
Step1. Choose Zoom In→Select a Specific Area

Step2. Now you can decide the region you want to display to the monitor. (You can slide the frame and also adjust its size.) When finished, double click the right mouse button.



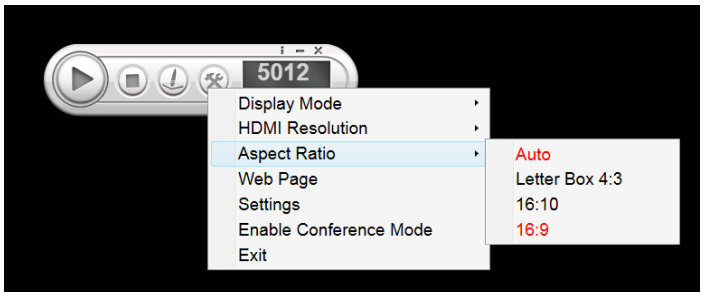
Step3. When finished, press the ”ESC” key to get back to main display function.

(3) HDMI Resolution



You can change the HDMI output resolutions.

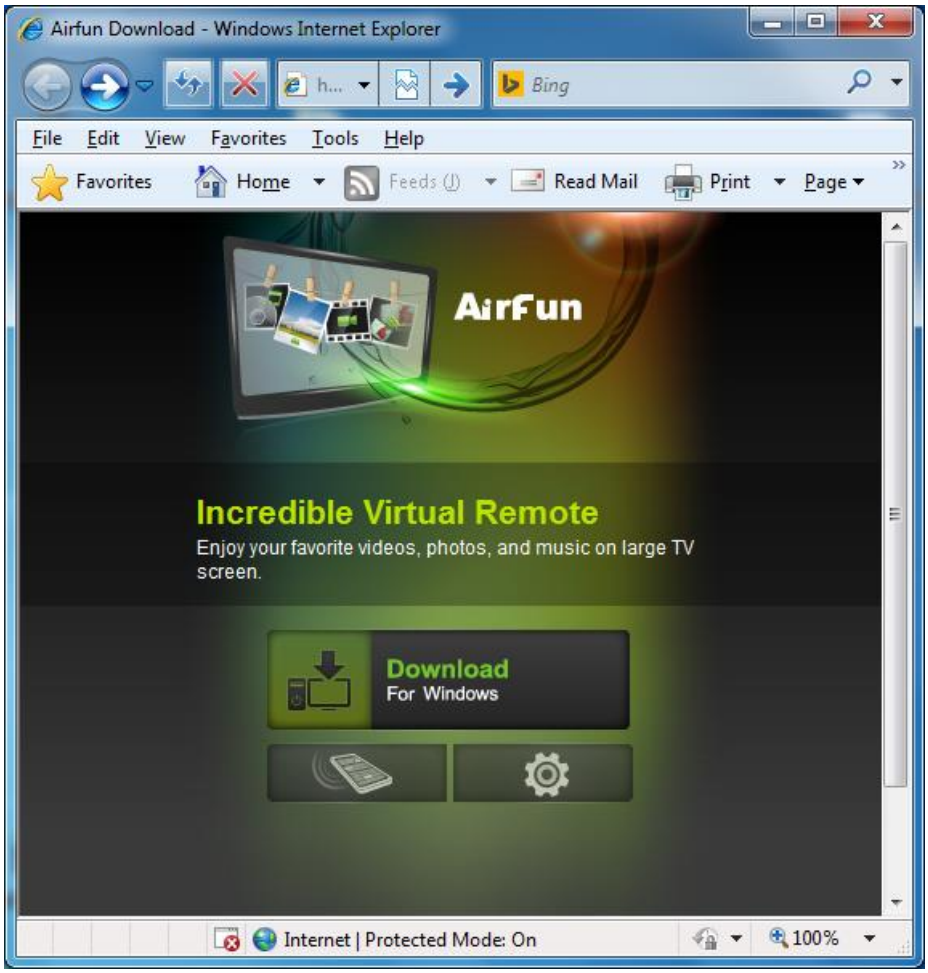
(4) Aspect Ratio



You can change the Rx monitor ratio.

- “Auto” means the ratio will follow the display source.
- “Pan Scan 4:3**”** means adjust widescreen images so that they can be shown within the proportions of a 4:3.
- “Letter Box 4:3”means adjust widescreen images so it could be shown within a full 4:3 ratio. The resulting image has mattes (black bars) left and right.

(5) Web Page (Airfun)


Airfun Download - Windows Internet Explorer
File Edit View Favorites Tools Help
Favorites Home Feeds (J) Read Mail Print Page
AirFun
Incredible Virtual Remote
Enjoy your favorite videos, photos, and music on large TV screen.
Download
For Windows
Internet | Protected Mode: On
100%

For details, please refer 2-4-3 Advanced Setup

(6) Enable Conference Mode

Under conference mode, there will be two options to function:

(A) Administration Role:

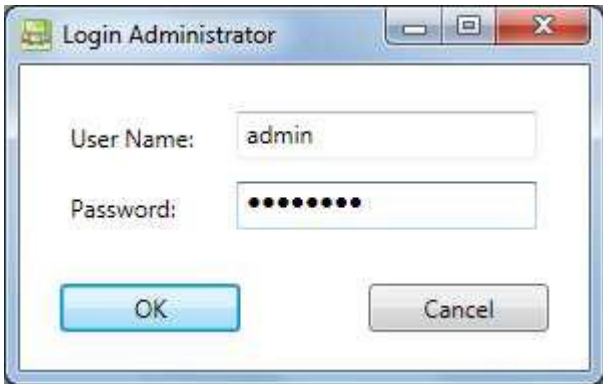
If you are the first one to connect with nScreenShare, you will be programed as Administration. You can control and decide from all the clients (computers that are also connected to the same WPCTV3000 and have

nScreenShare active but not as Administration) who will be able to project their PC screen as main.

To connect as Administrator

1. Click on “Enable Conference Mode” under Menu options
2. A message box will show up and as you to provide below information as shown in picture

3. Type in “admin” for User Name and “adminpwd” for Passwords.



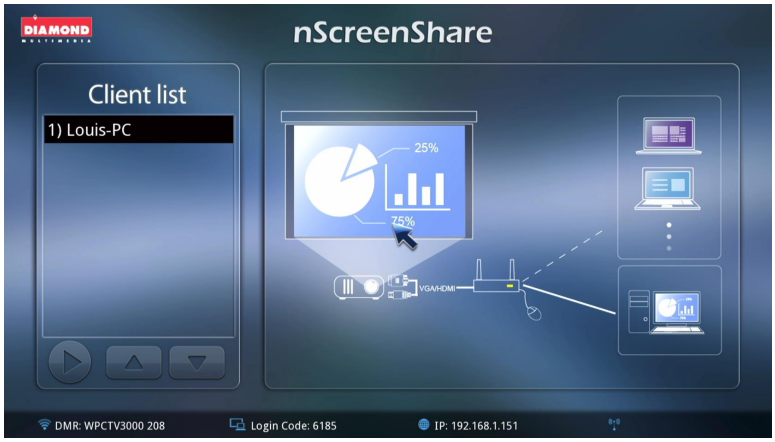
4. After logging in successfully, the control panel will be displayed as below

Admin mode control panel

No	Name	Function Description
1	Play	Start / pause presentation. If paused, a current presentation or stream will freeze.
2	Stop	Stops a current presentation or stream and will go back to instruction page.
3	Annotator	To start the new sheet for notes taking or on the current slide
4	Menu	Access menu list.
5	User List	Show the application login code.
6	Volume	Control the slide bar to change the volume. Press the icon to mute.
7	Login code	Minimize and close the Application Software window. Information
8	Information/Minimize/Close	Start / pause presentation. If paused, a current presentation or stream will freeze.
9	Minimize	Stops a current presentation or stream and will go back to instruction page.
10	Close	To start the new sheet for notes taking or on the current slide

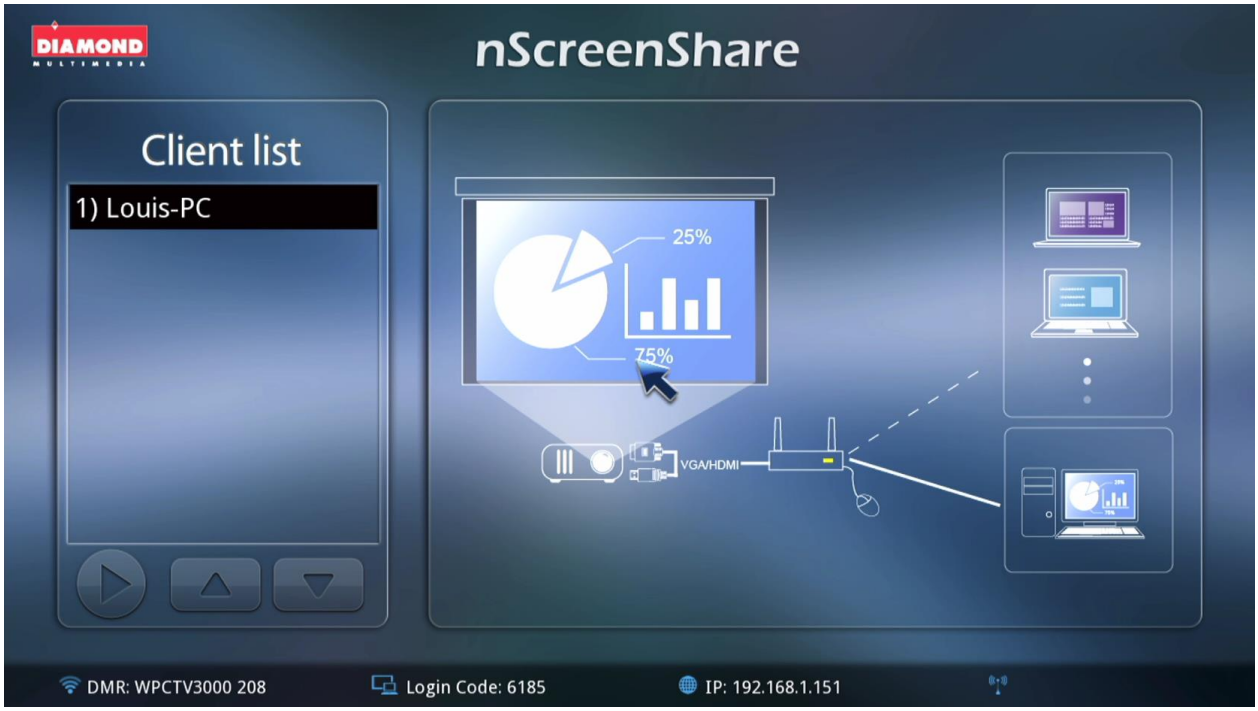
5. Click OK to enter as Administrator

Once logged in, you will see the below image on screen



As soon as there are other clients joining in the conference, you will be able to select the designate one to project their image. You will see the list of options as below. Double click on the one that you wish to

select and the device will automatically project their PC screen image over.

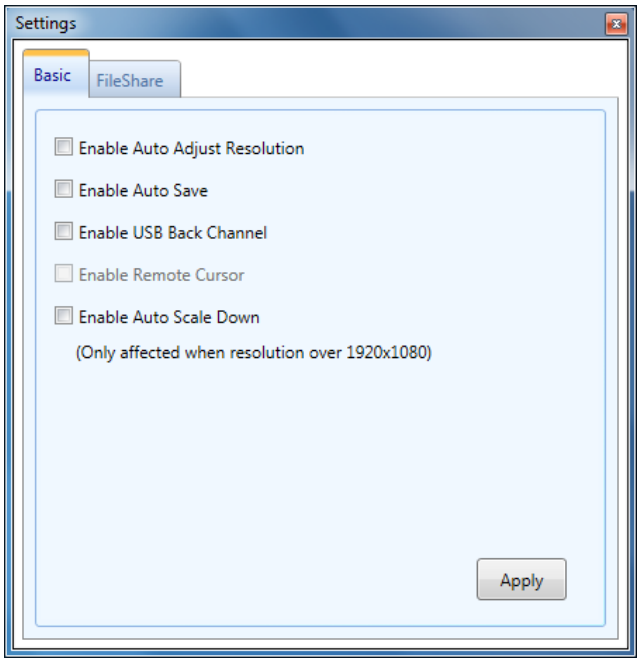


(B) Client Mode

If you are connected as client (connecting to the same WPCTV3000 and active the nScreenshare), you could only project the screen image when Administration chooses to. Just simply follow the steps in ScreenShare and you will be able to log in the same conference room with others.

As in Client Mode, it will only show below tool bar since only Administration can project the image.

(7) Setting



No	Name	Function Description
1	Auto Adjust Resolution	Let your pc/notebook resolution changed by Rx monitor resolution.
2	Auto Save	After reboot this application, all of the settings will be saved.

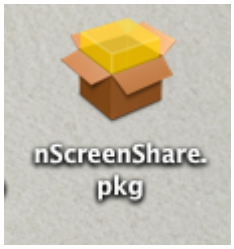
(8) Exit

Exit from nScreenShare application, and go back to instruction page.

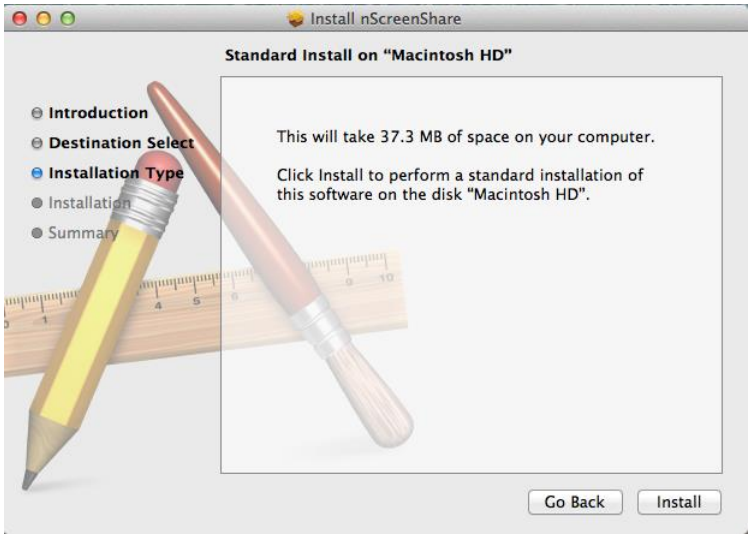
2-1-2 Basic Usage of application software for Mac (Option)

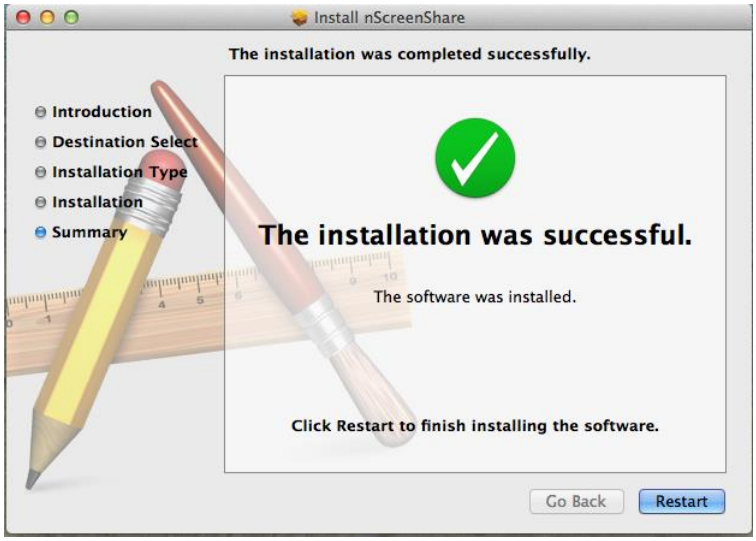
You can install WPCTV3000 nScreenShare for Mac from the included CD ROM.

(1) Click twice on the (.pkg) file to start installing.



(2) Install progress.





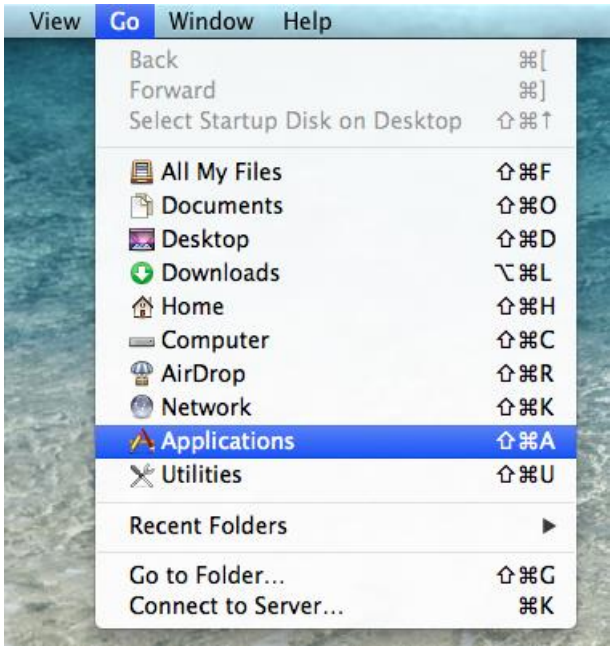
You have finished installing the software。

2-1-2-1 Launching NScreenShare

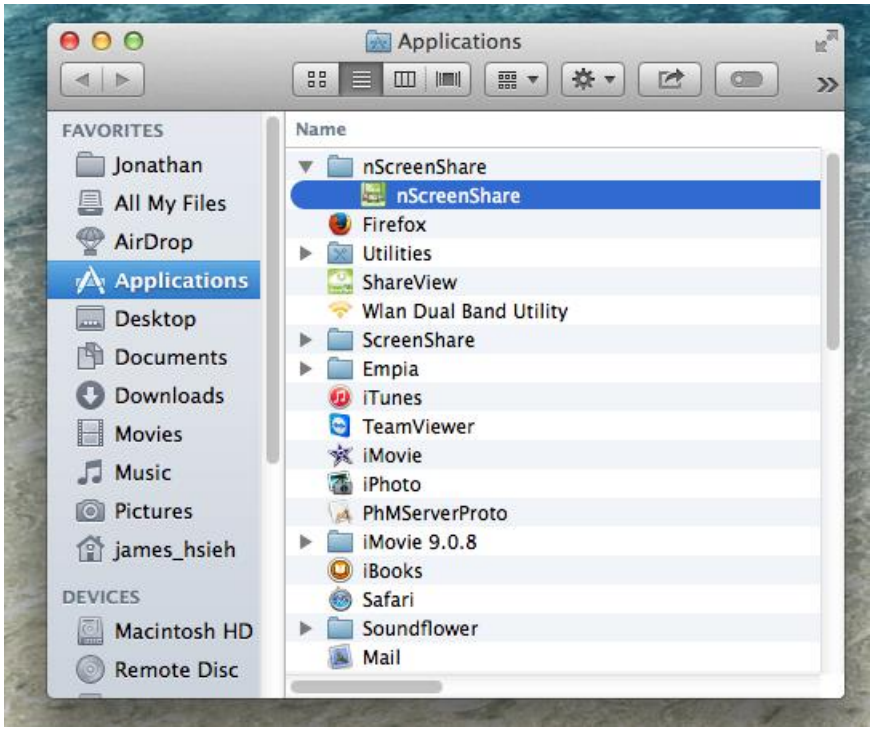
Please follow the steps below to run nScreenShare for Mac.

(1) Search and connect to the device's SSID in Wi-Fi list on your notebook.
(The sample of "device SSID" in the picture is "WPCTV3000")

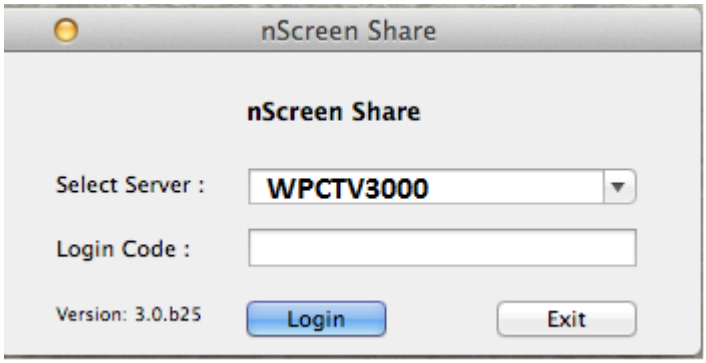
(2) Go -> Applications

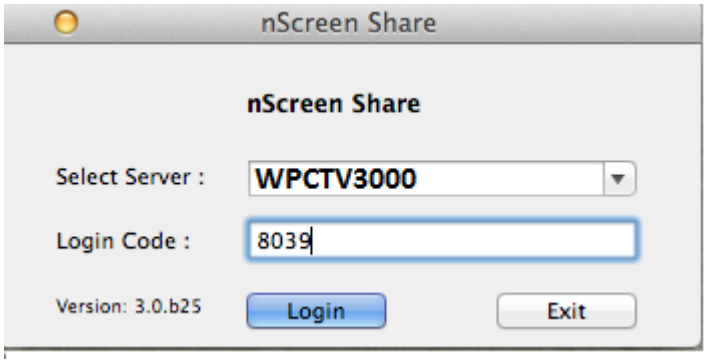


(3) Applications -> NScreenShare then press NScreenShare to start.

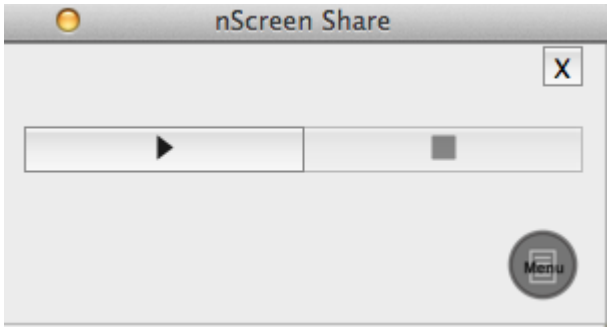


(4) NScreenShare will auto detect 'Server IP', please input login code as shown on instruction page.



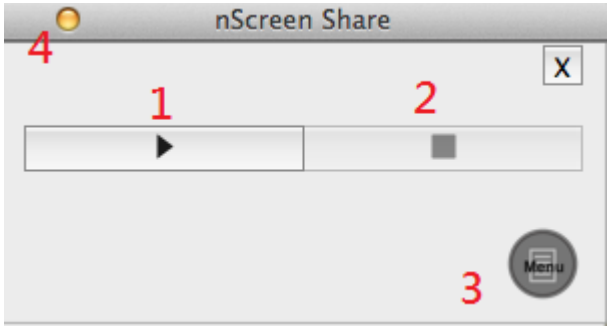


(5) If login code is correct, application software will appear.



2-1-2-2 User Interface of NScreenShare

Main functions

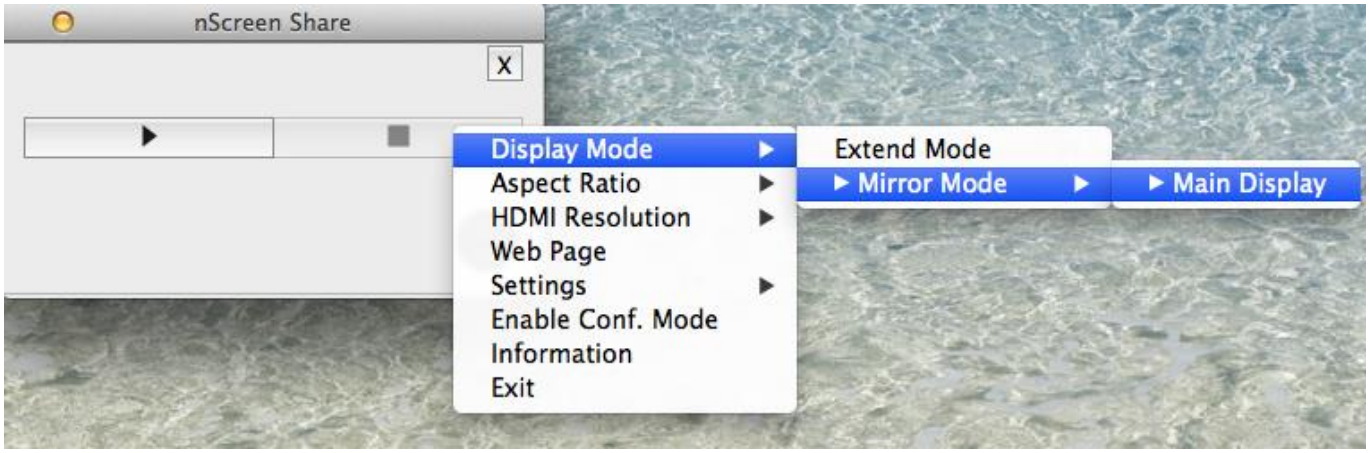


No	Name	Function Description
1	Play	Start / pause presentation.
2	Stop	Stops a current presentation or stream and go back to instruction page.
3	Menu	Access menu list.
4	Minimize/Close	Minimize and close the Application Software window.

Menu

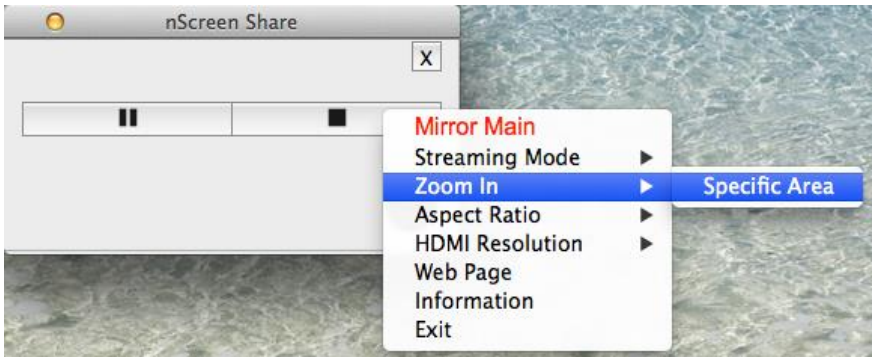
You can also click ‘Menu’ button to access menu list.

(1) Display Mode



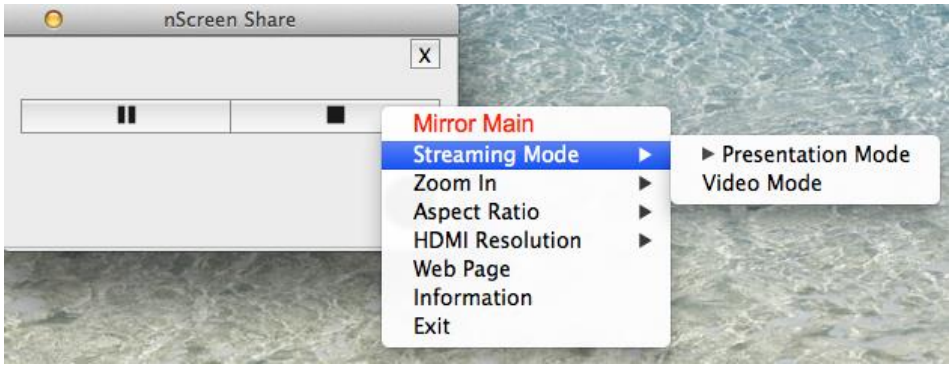
No	Name	Function Description
1	Main Display	Mirror NB/PC display to the Rx monitor.
2	Extend Display	Mirror your extend display to the Rx monitor.

(2) Zoom In (This function only can be used when “Main Display” running)



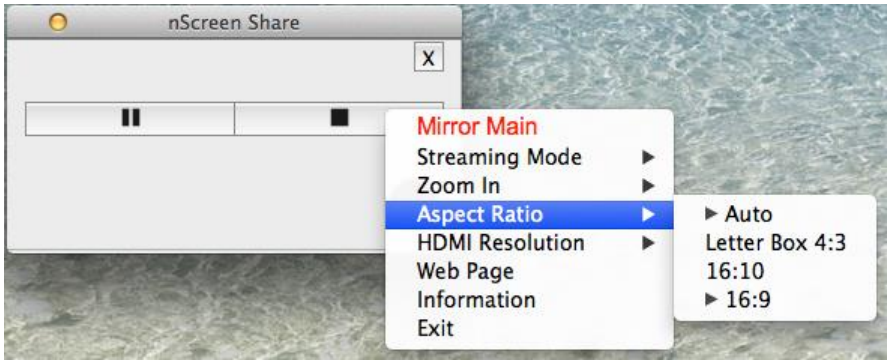
You can decide the region you want to zoom in and display to the monitor.

(3) Streaming Mode (This function only can be used when mirroring)



No	Name	Function Description
1	Presentation Mode	Default is presentation mode.
2	Video Mode	If play video performance is not good, select option for best performance.

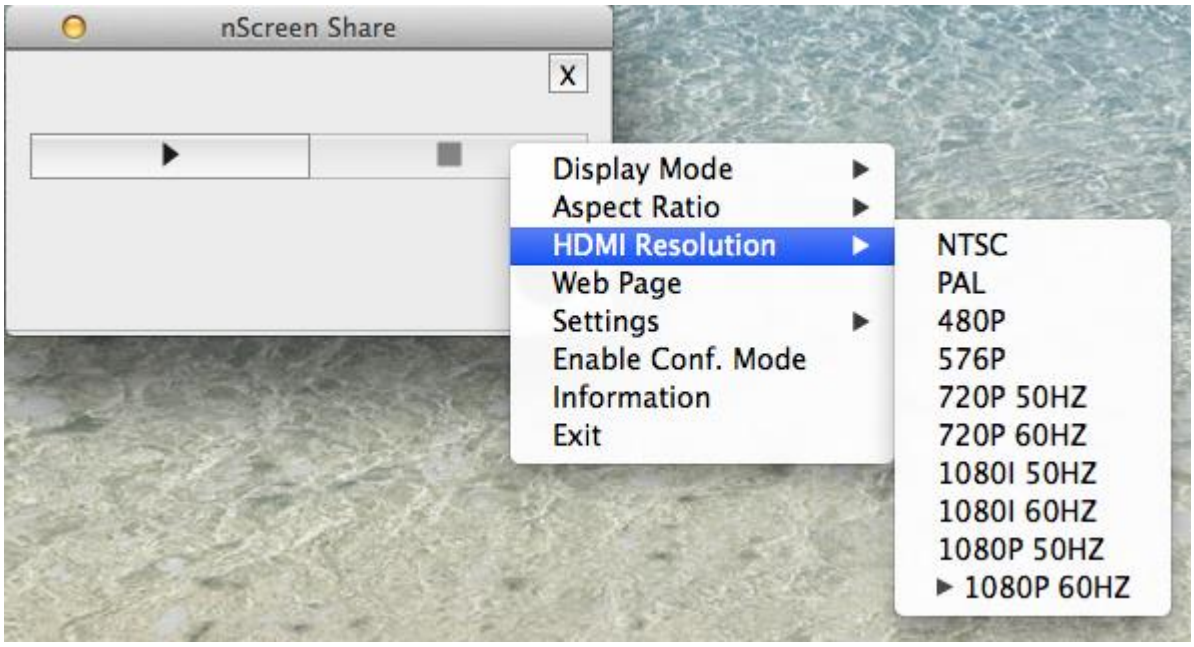
(4) Aspect Ratio



You can change the Rx monitor ratio.

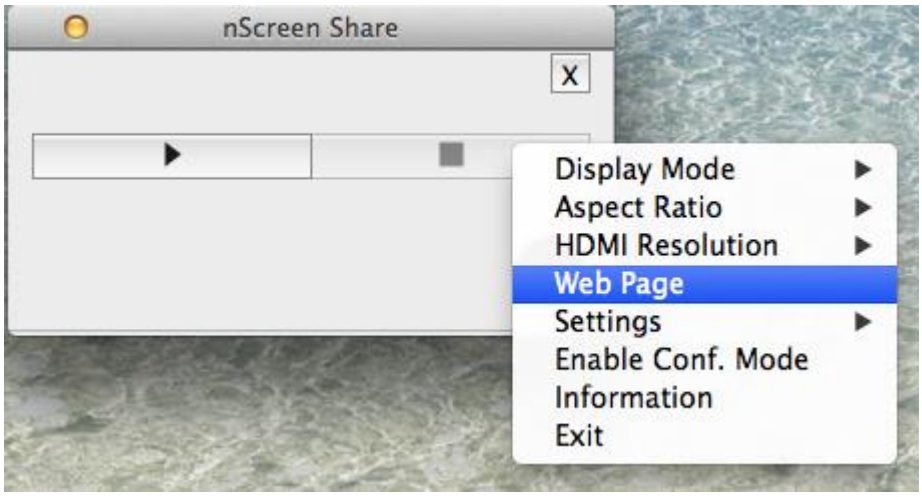
Default is “Auto”, means the ratio will follow the display source.

(5) HDMI Resolution



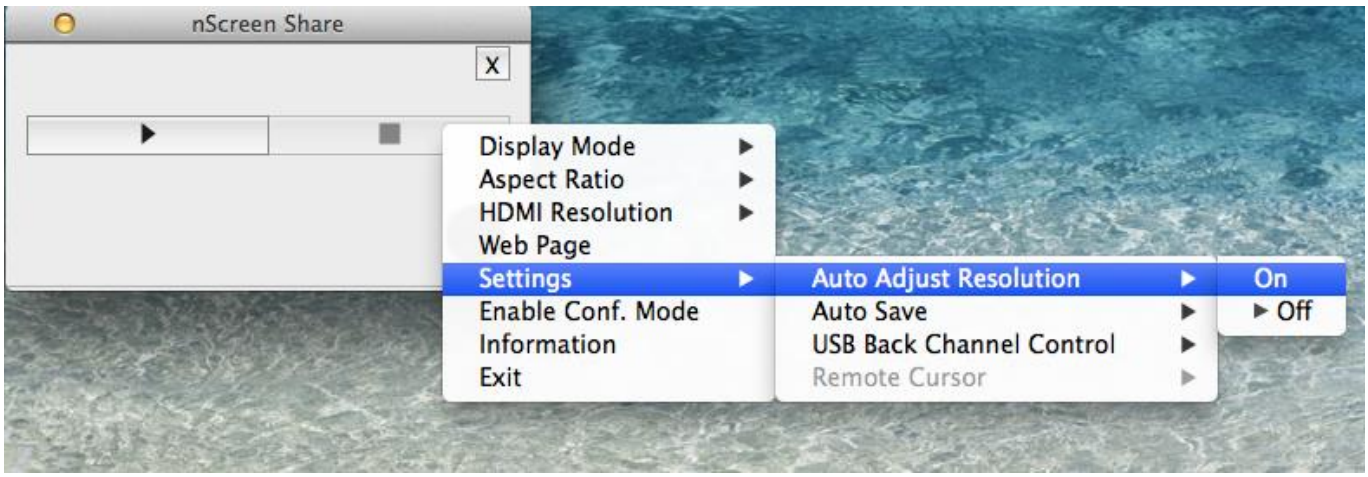
You can change the HDMI output resolutions.

(6) Web Page



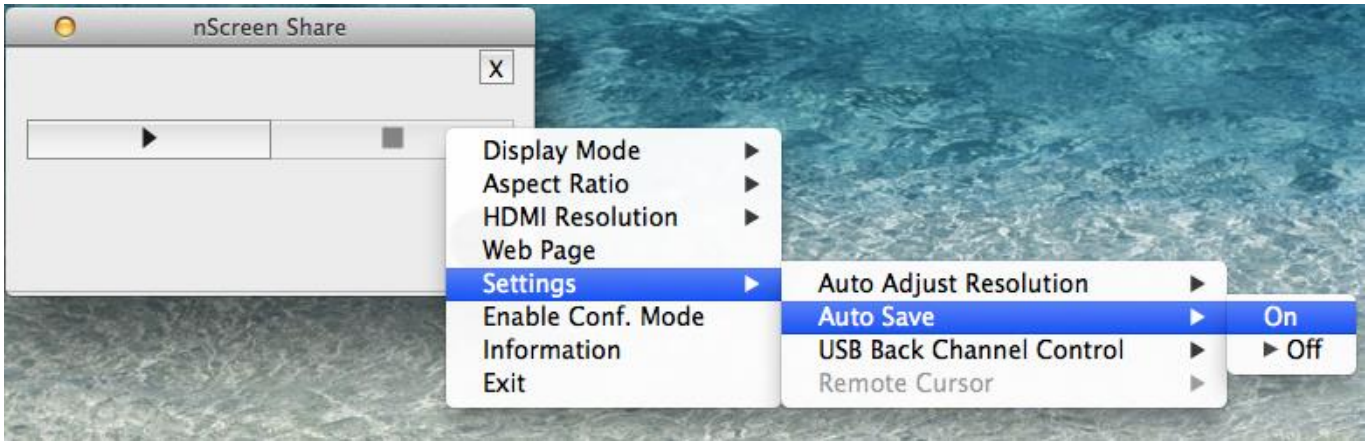
For details, please refer 2-1-1 Advanced Setup

(7) Auto Adjust Resolution



Let's your pc/notebook's resolution automatically changeby Rx monitor resolution.

(6) Auto Save



After rebooting this application, all of the settings will be saved.

(7) Enable Conference Mode

nScreenShare (Conference Mode)

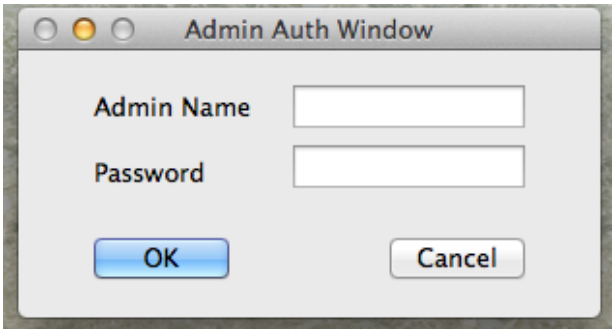
Under conference mode, there will be two options:

(A) Administration Role:

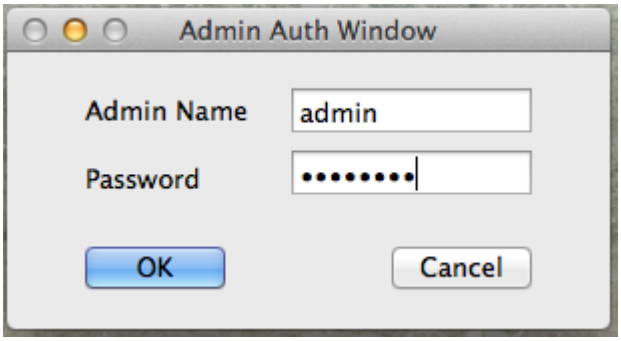
If you are the first one to connect with nScreenShare, you will be programed as Administration, you would have full control and decide from all the clients (people who also connect to the same WPCTV3000 and have nScreenShare active but not as Administration) who will be able to project their PC screen as main.

To connect as Administration

1. Click on “Enable Conference Mode” under Menu options
2. A message box will show up asking you to provide the admin name and password



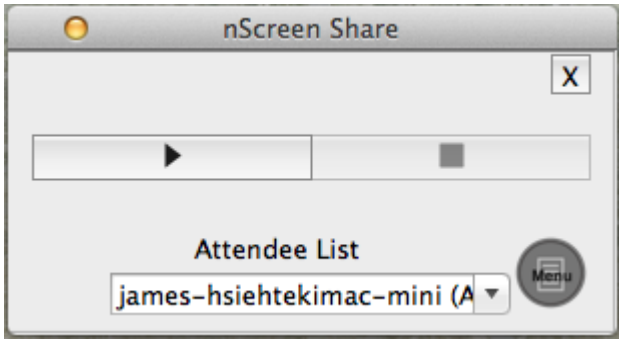
3. Type in “admin” for User Name and “adminpwd” for Passwords.



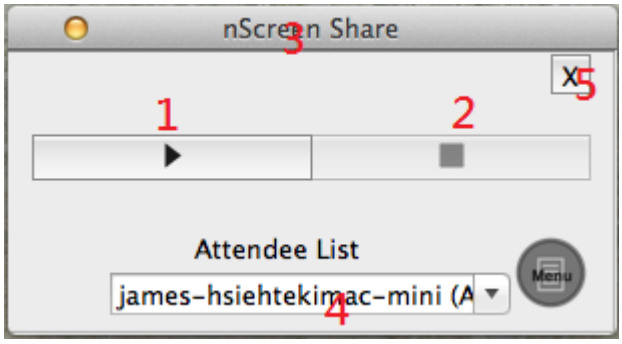
4. Click OK to enter as Administrator.

Once logged in, you will see the below image on screen

After logging in successfully, the control panel will be displayed as below.



Admin mode control panel



The function description is as below.

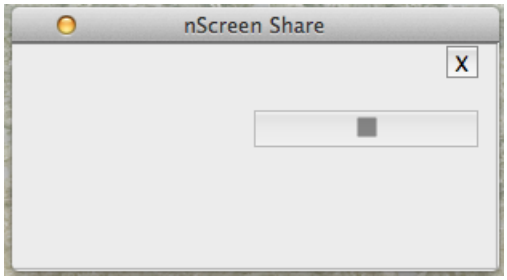
No	Name	Function Description
1	Play	Start / pause presentation or stream.
2	Stop	Stop a current presentation or stream
3	Menu	Access menu list.
4	User List	List the connected PC's. The host/teacher can choose the PC from the connected list to project to big screen.
5	Close	Close the Application window.

(B) Client Mode

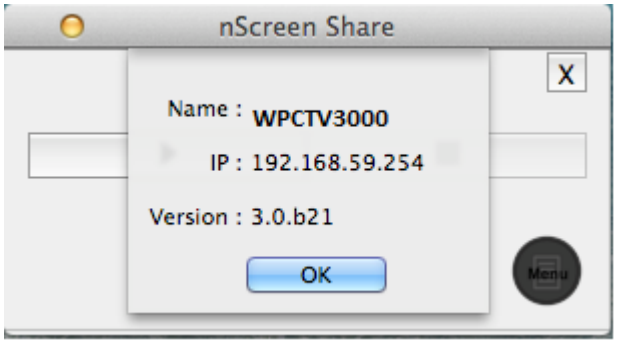
If you are connected as a client (connecting to the same WPCTV3000 and active the nScreenshare), you could only project the screen image when Administration chooses to.

Follow the steps in ScreenShare and you will be able to log in the same conference room with other clients.

As in Client Mode, it will only show the below tool bar since only Administrators can project the image.



(8) Information



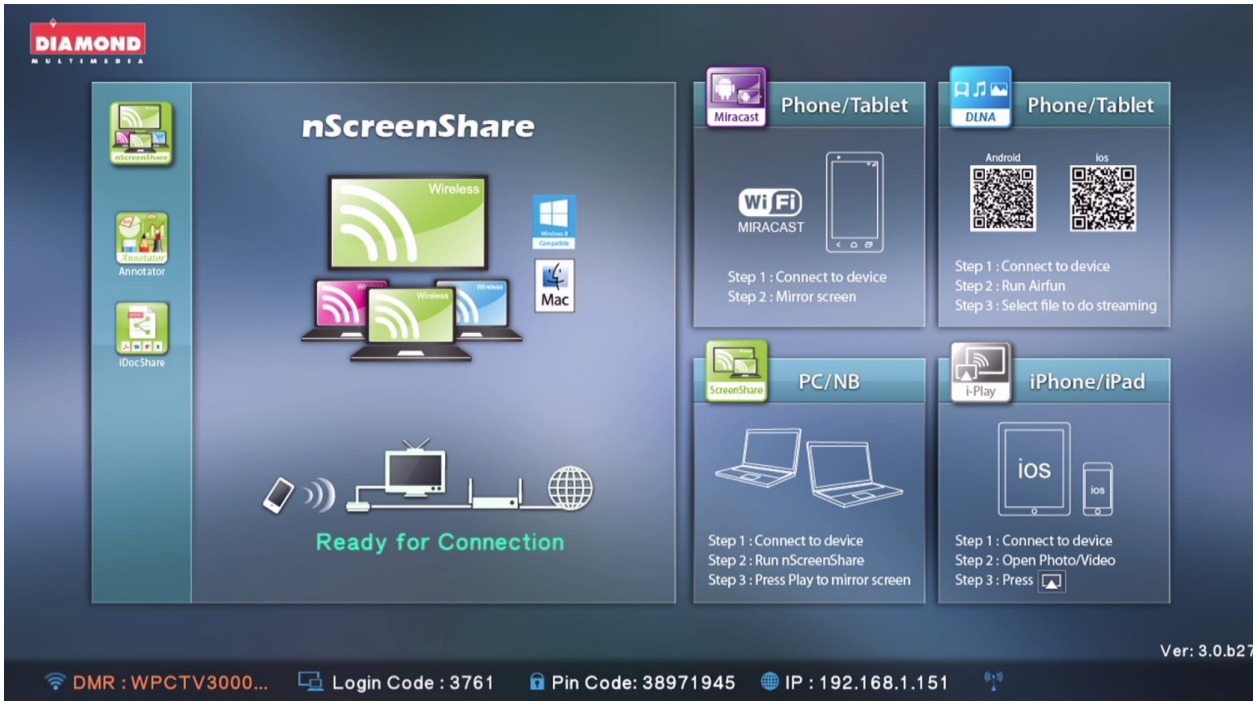
Displays the application information, like the Adapter name, IP Address and Version number.

(9) Exit

Exit from NScreenShare application, and go back to instruction page.

2-2 Using WPCTV3000 on Miracast

2-2-1 Launching Miracast



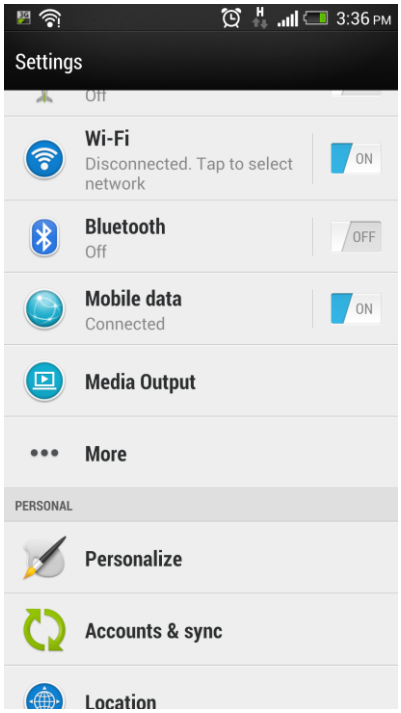
To connect WPCTV3000 (Wi-Fi Miracast), with your smart phone or tablet device must be Wi-Fi Miracast certified. See appendix C at the end of this guide for Miracast supported devices are contact your tablet or smartphone manufacture to confirm Mircast support.

Turn on the Miracast function on your smart phone or tablet device, search and connect to the SSID show on monitor. (The sample of “SSID” in the picture is “WPCTV3000”)

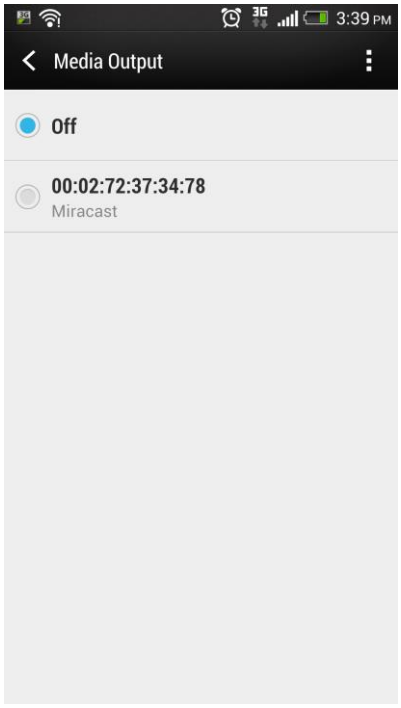
2-2-2 How To Use Miracast on your Smartphone or Tablet. (Android OS)

1. HTC (New One)

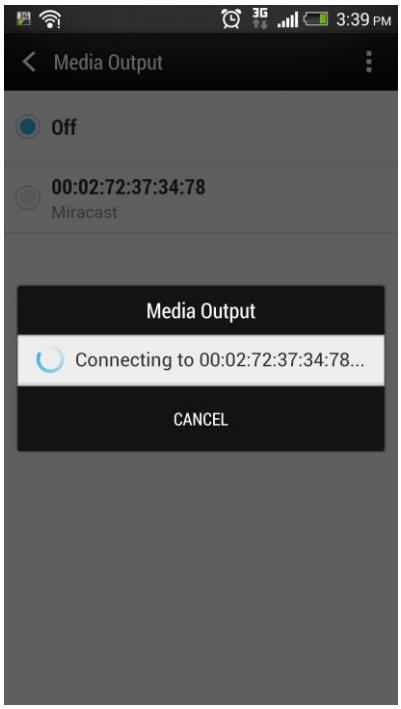
(1) “Settings” -> “Media Output”



(2) The phone will automatically scan the WPCTV3000 streaming box and display the SSID WPCTV3000.



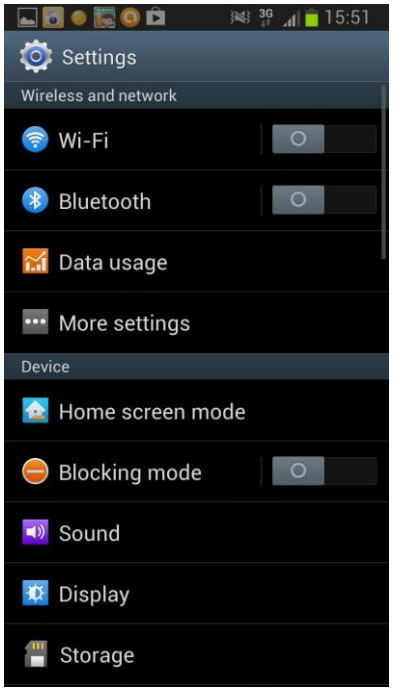
(3) Choose the SSID which you find on the TV, and your phone will connect to the box automatically.



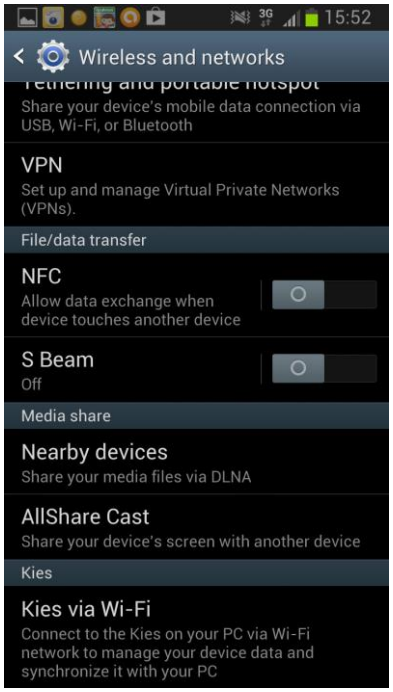
(4) Mirroring will begin while your phone connect to streaming box successfully.

2. Samsung (S3 & Note2)

(1) “Settings” -> “More settings”

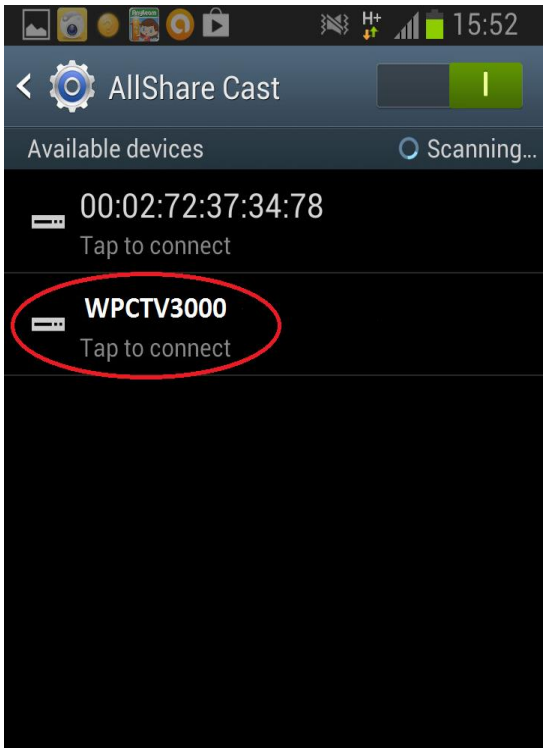


(2) “AllShare Cast”

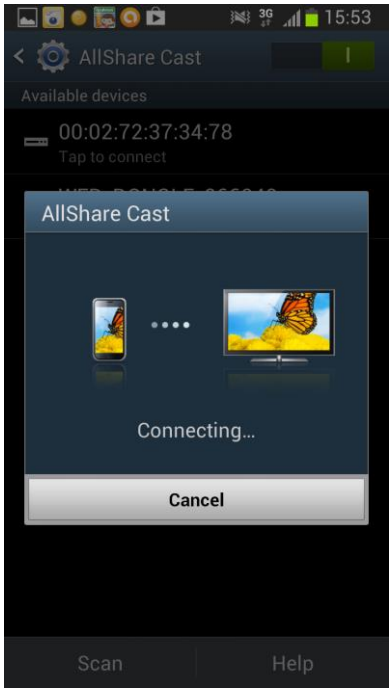

15:52
Wireless and networks
Share your device's mobile data connection via USB, Wi-Fi, or Bluetooth
VPN
Set up and manage Virtual Private Networks (VPNs).
File/data transfer
NFC
Allow data exchange when device touches another device
S Beam
Off
Media share
Nearby devices
Share your media files via DLNA
AllShare Cast
Share your device's screen with another device
Kies
Kies via Wi-Fi
Connect to the Kies on your PC via Wi-Fi network to manage your device data and synchronize it with your PC

(3) Turn “ON” AllShare Cast. Your phone will scan the streaming box, and it will show the SSID of the box.

NOTE: it also may show up as “Screen Mirroring”



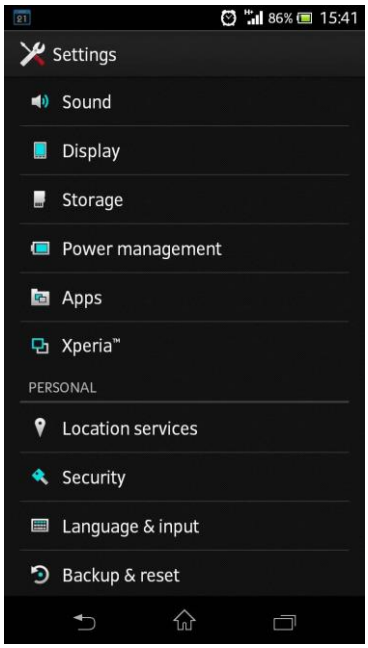
(4) Choose the SSID which you find on the TV, and your phone will connect to the box automatically.



(4) Mirroring will begin while your phone connect to streaming box successfully.

3. SONY (Xperia TX)

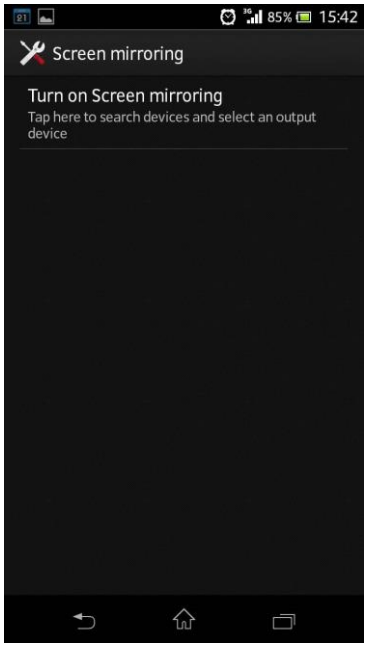
(1) “Settings” -> “Xperia”



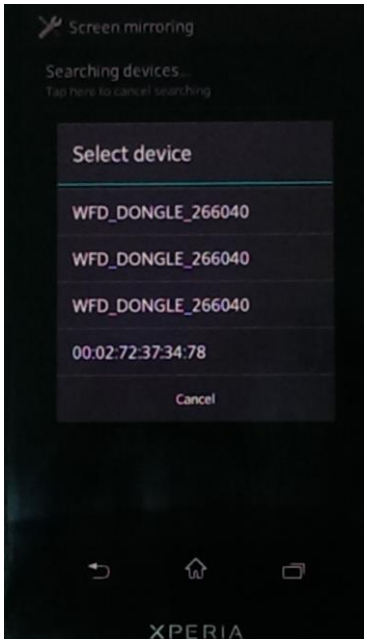
(2) “Screen mirroring”

86% 15:41
Xperia™
About PlayStation Certified
Internet settings
Download settings for Internet and MMS
Screen mirroring
Mirror your Xperia™'s screen on your TV
Throw settings
Wirelessly play content in your Xperia™ on other devices
Usage info settings
Send statistics to Sony Mobile Communications
USB Connectivity
Connect your device to other devices or PCs with USB or via Wi-Fi

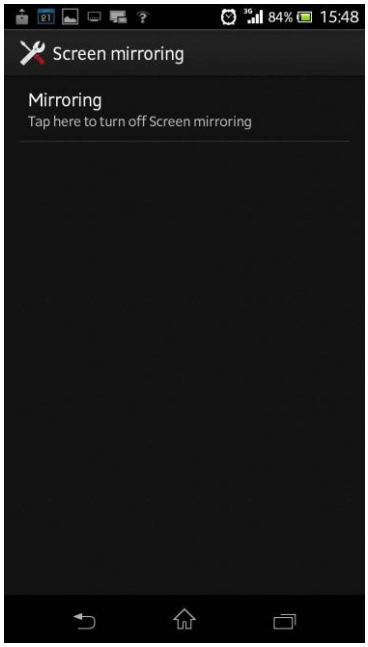
(3) “Turn on Screen mirroring”



(4) Your phone will scan the streaming box, and it will show the SSID of the box.



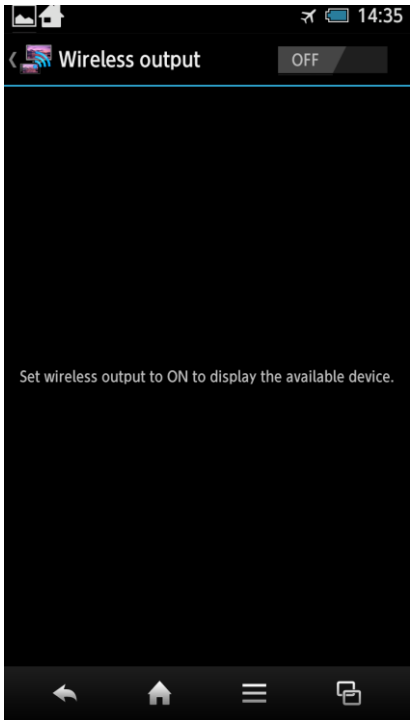
(5) Choose the SSID, mirroring will begin while your phone connect to streaming box successfully.



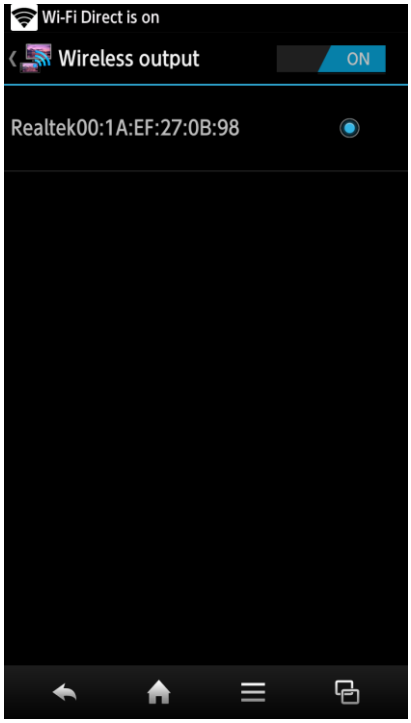
4. SHARP (SH-10D)

(1) “Settings” -> “Wireless output”

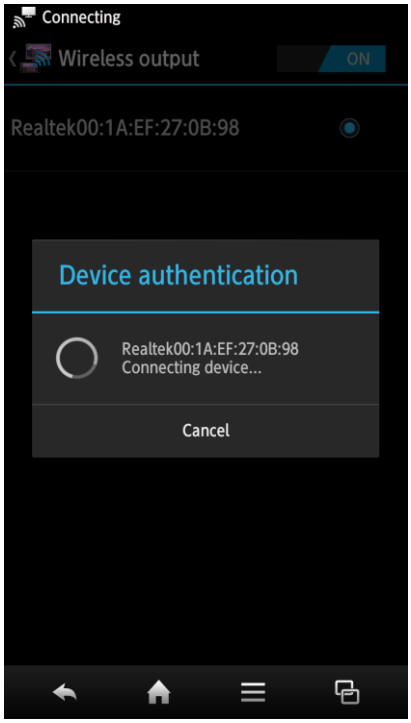
(2) Turn “ON”



(3) Your phone will scan the streaming box, and it will show the SSID of the box.



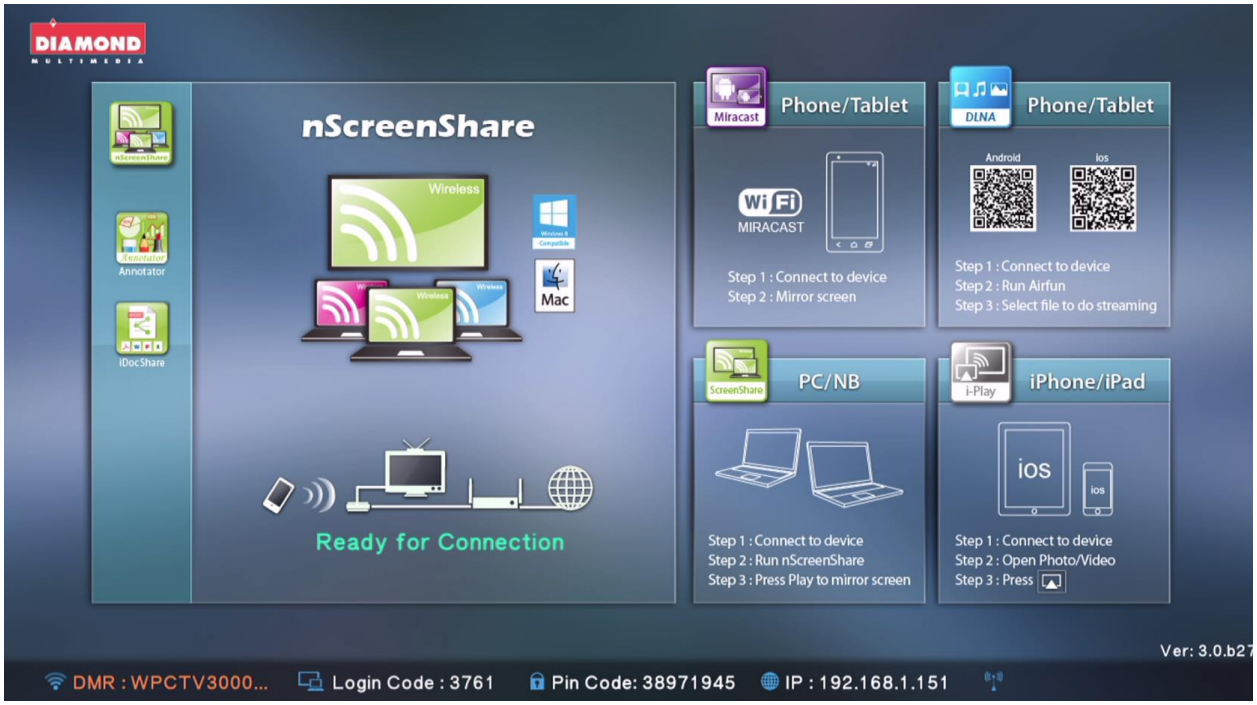
(4) Choose the SSID which you find on the TV, and your phone will connect to the box automatically.



(5) Mirroring will begin while your phone connect to streaming box successfully.

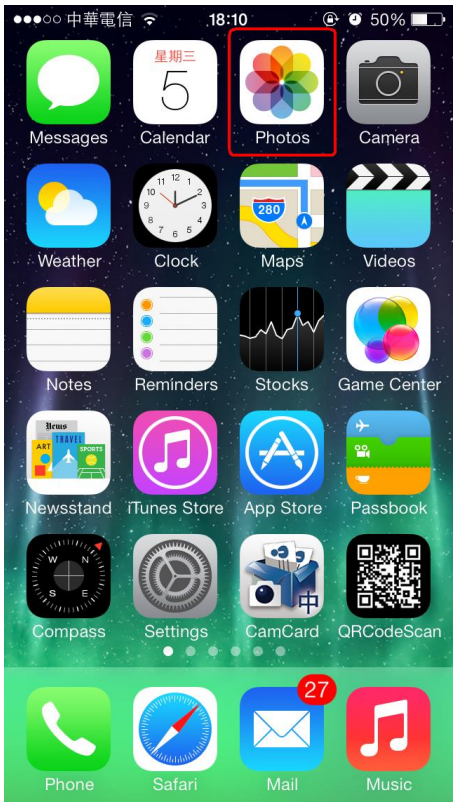
2-3 Using WPCTV3000 on i-Play

2-3-1 Launching i-Play for file streaming

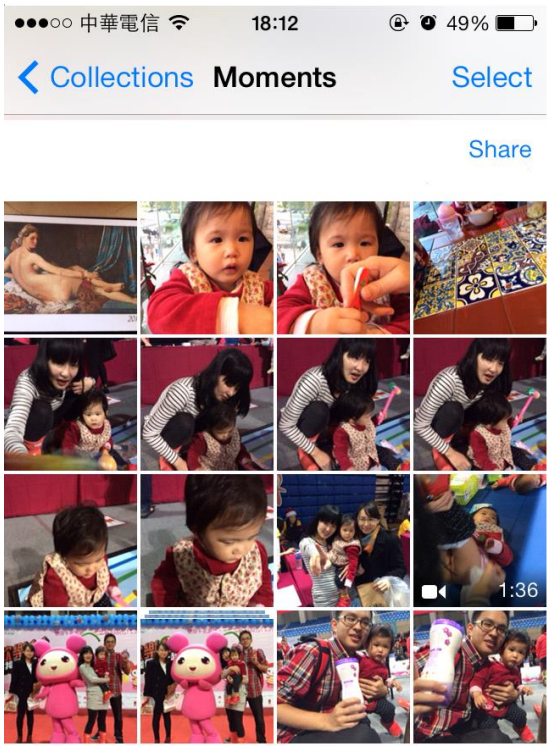


(1) Search and connect the device's SSID in Wi-Fi list on your iPhone/iPad first.
(The sample of "device SSID" in the picture is "WPCTV3000")

(2) Run “Photos”

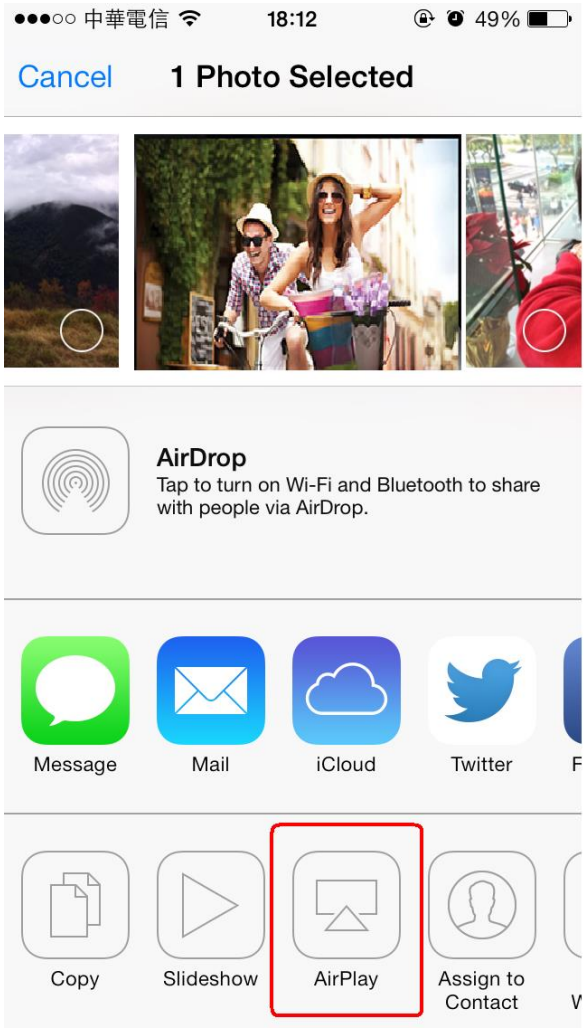


(3) Choose the photos or videos witch you want to share.



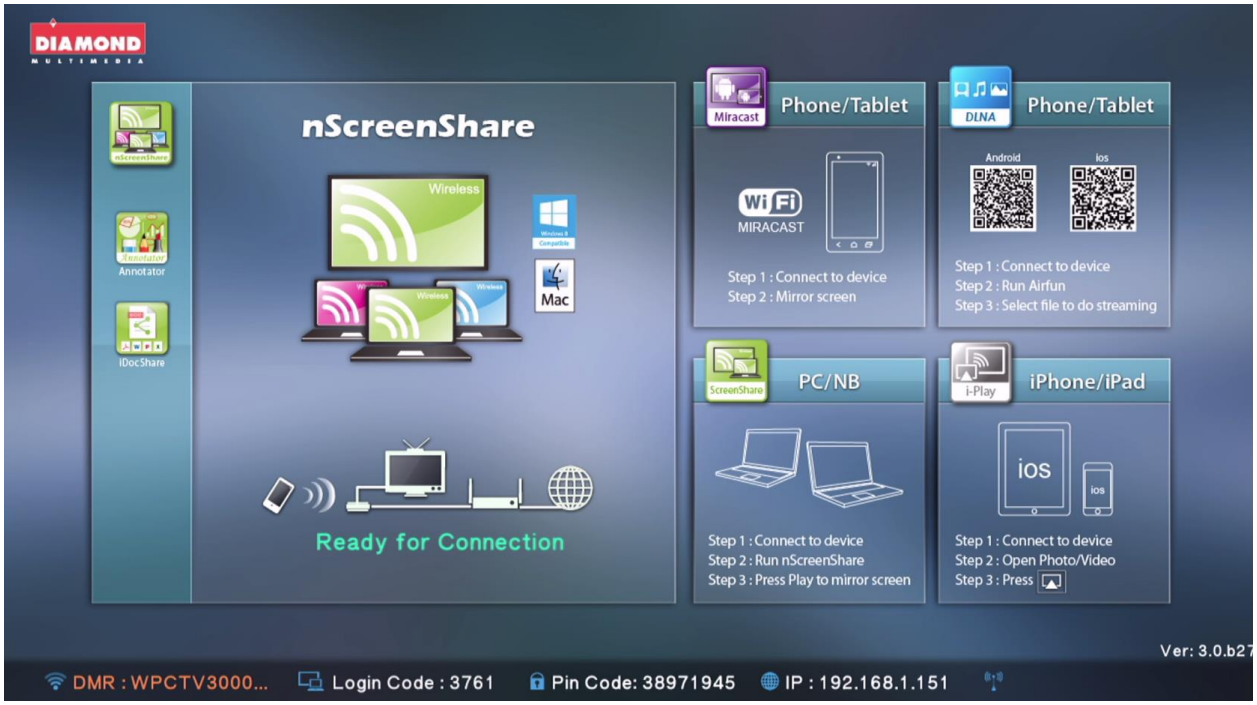
(4) Press the icon at left-corner.

(5) Press the “Airplay” to show the device list.



(6) Select your receiver box and the file will begin streaming.

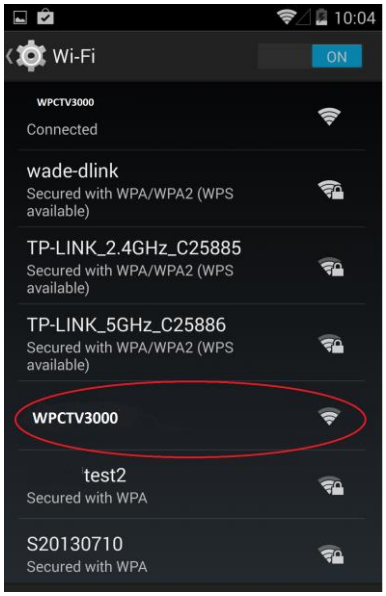
2-4 Using WPCTV3000 on Media Streaming



Please follow the steps below to run Media Streaming.

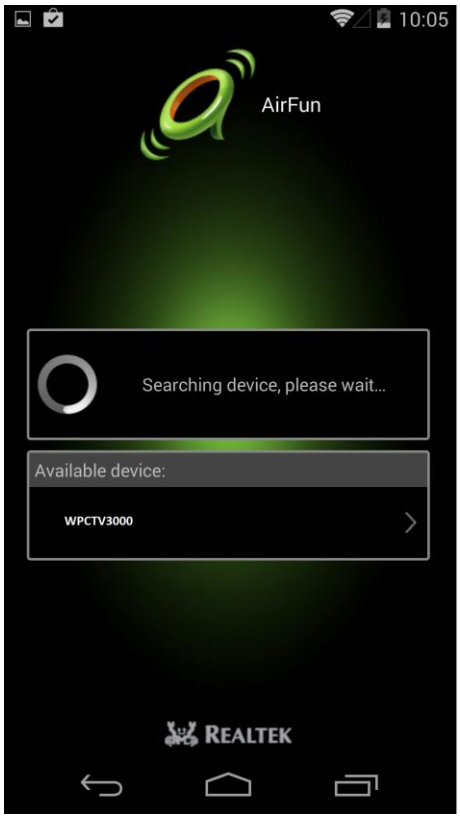
2-4-1 Basic Usage of AIRFUN Utility for APPs

1. Scan the QR code or go to the Google play (App store) to download AirFun.
2. Connect to WPCTV3000 in Wi-Fi list.



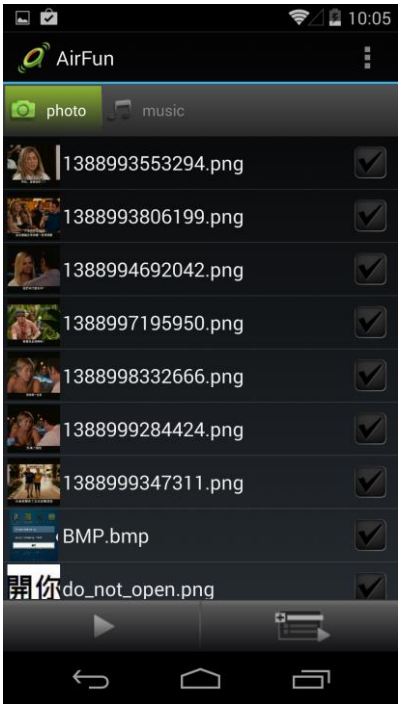
3. Press the Airfun icon on your screen.

4. The Airfun start to search the DLNA device.



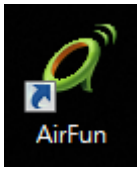
5. If getting DLNA device, you should be able to see the UI bellow.

6. Select this icon to choose the file type which you want to share.



2-4-2 Basic Usage of AIRFUN Utility for Windows software

1. You can install Airfun application from the provided CD ROM.
2. Double click the AIRFUN icon from your desktop.



3. The Airfun start to search the DLNA device. If there is no DLNA device, it will show “No device found”.

4. If using a DLNA device, you should be able to see your PC screen on the TV now.

5. You can drag the video/photo/music file to Airfun main menu directly. For video files, please drag the files to the right folder. Example; videos go to the video playback folder and phones/Music go to the Photo/Music folder.

6. For photo/music files, please drag files to the left folder.

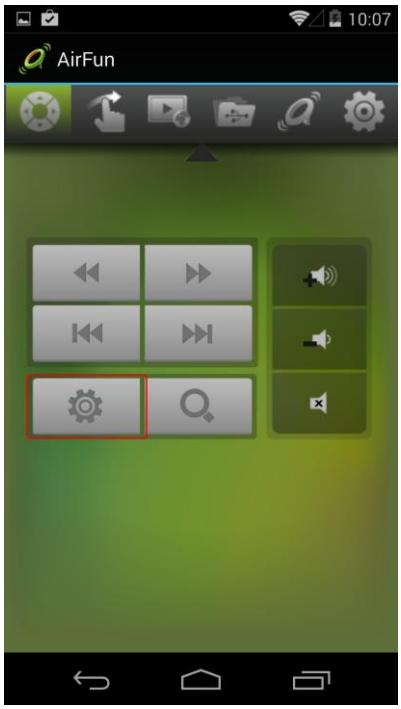
2-4-3 Advanced Setup

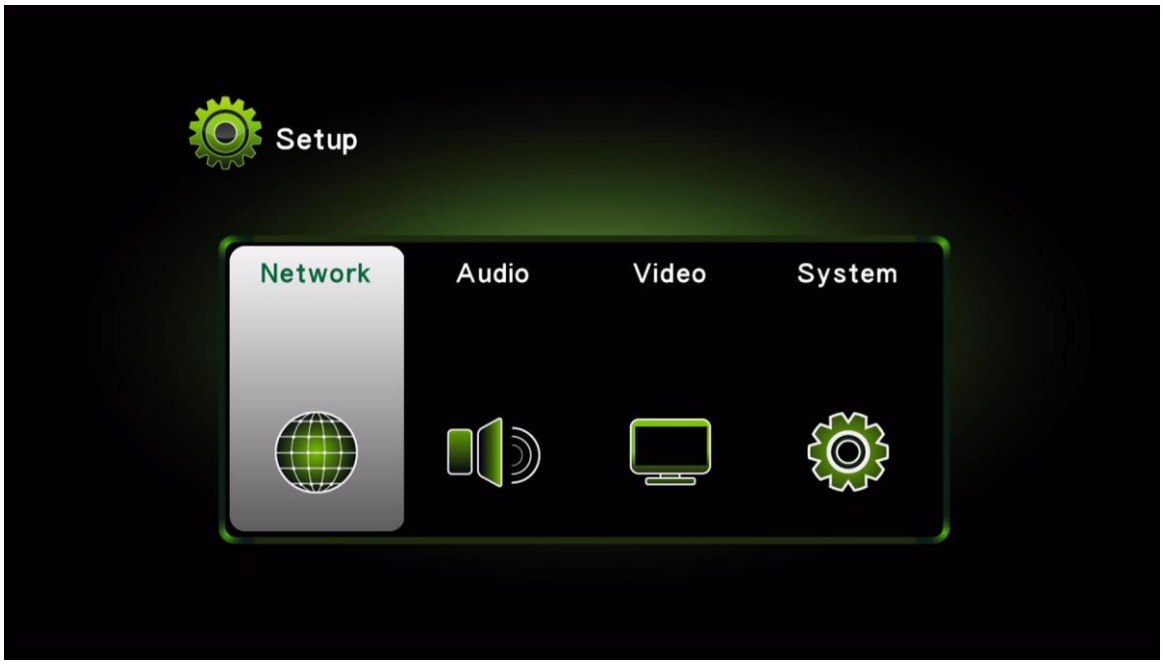
Please connect your Wi-Fi device to the WPCTV3000 first, and run the Airfun app, you should be able to see the UI bellow.

Now you can do basic settings, such as change the SSID, connect to router, or choose the language.

If you need advanced settings, please go to the remote control page below, and choose next page, as marked in red.

Press the gear icon (marked in red), to enter setup.

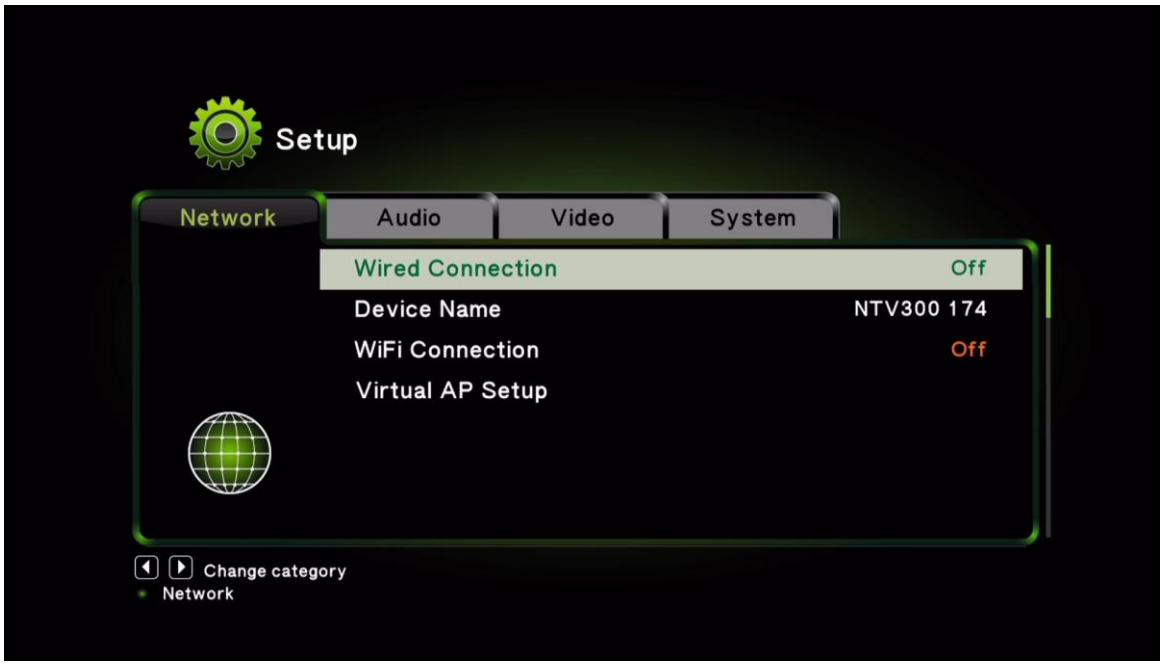




In the setup page, you can use the virtual remote controller to change the setting.

- Select “left/right=> OK” to enter the setting page for Network / Audio / Video / System.
- Select “Return” to go to the previous page or standby screen.

2-4-3-1 Network Setting



Wired Connection

Item	Description
DHCP IP (AUTO)	WPCTV3000 will obtain an IP address from DHCP server automatically.
Fixed IP (Manual)	Set WPCTV3000 IP address manually. Fill the fields below to setup IP address.

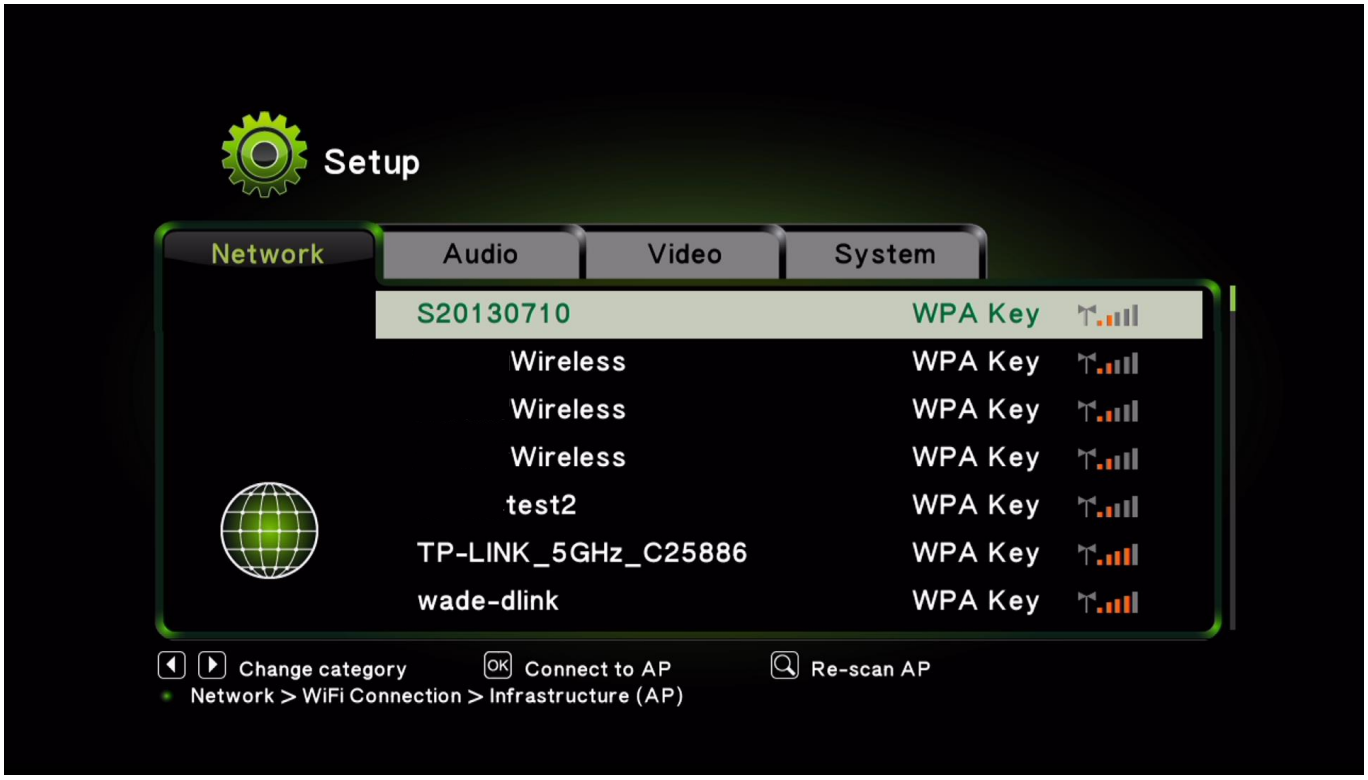
Device Name

Item	Description
Device Name (SSID)	Change the Device Name (SSID). Default is “WPCTV3000”.

Wi-Fi Connection

If you are setting for the first time, you will see below screen, click “on”.

Then there will show the Wireless AP list on the screen. Please choose the AP you want to connect. The function is to bridge to Internet via another Wireless AP.



After successfully connecting, standby screen will show router name on the right bottom corner.

If you wish to disconnect with the router, click “off” on the Wi-Fi connection page.

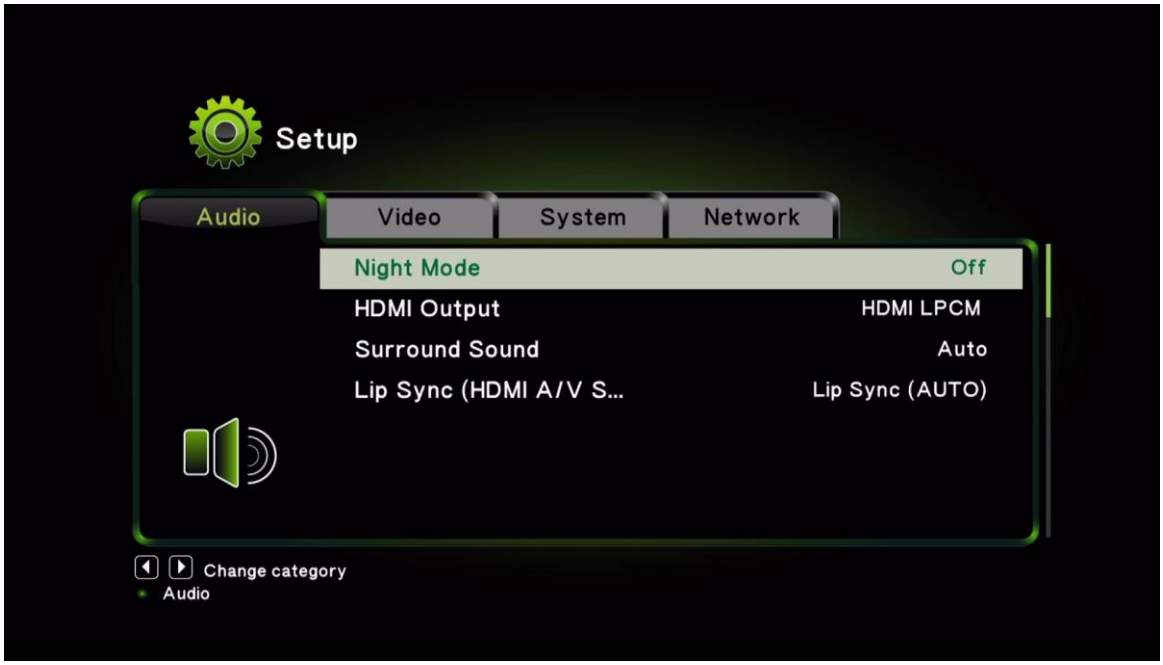
More information, please reference Chapter 3.

Virtual AP Setup

Item	Description
Wireless Security	**Open System** Disables wireless encryption. **WPA Key** Enables WPA + WPA2 encryption. Wireless clients must support WPA encryption and know the encryption passphrase you set here.
Password	If Wireless Security is enables, you can set a wireless password.
Radio Band	Set the Radio band to 2.4GHz or 5GHz. Please confirm your PC/NB support 5GHz before you set the radio band to 5GHz
5G Preferred Channel	If the Radio band is 5GHz now, you can change the 5G frequency. Default channel is 36, 40.
Save Change	Save the configuration

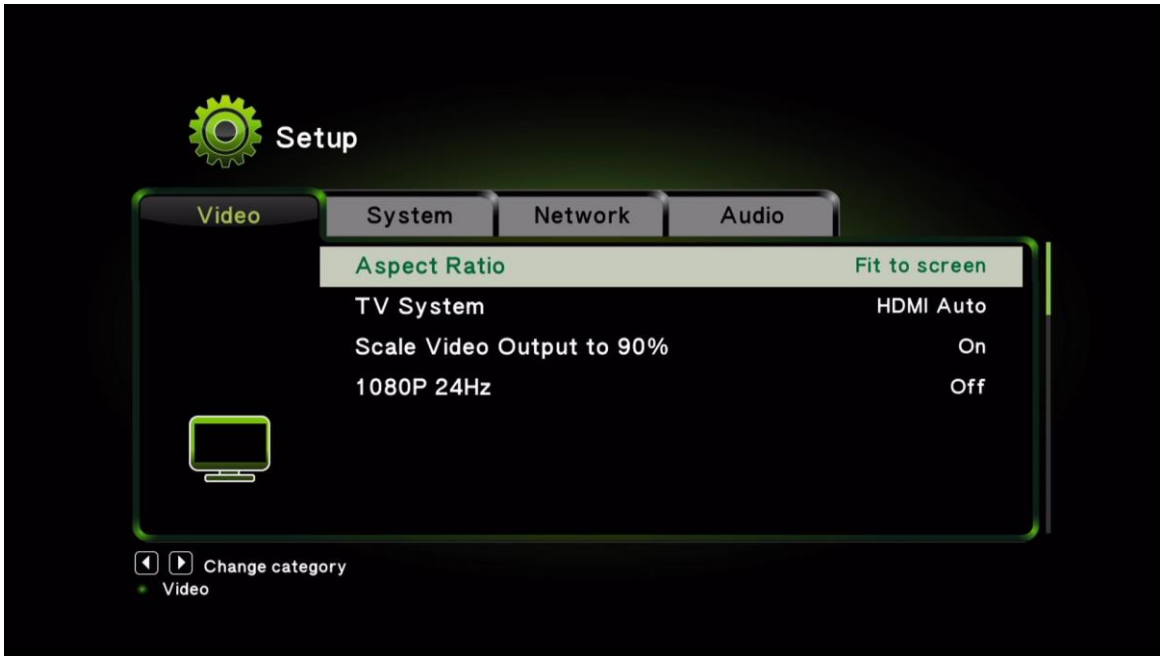
2-4-3-2 Audio Setting

You can adjust the advanced audio setting such as Night mode, HDMI Audio output format, Surround sound setting and Lip Sync setting in this page.



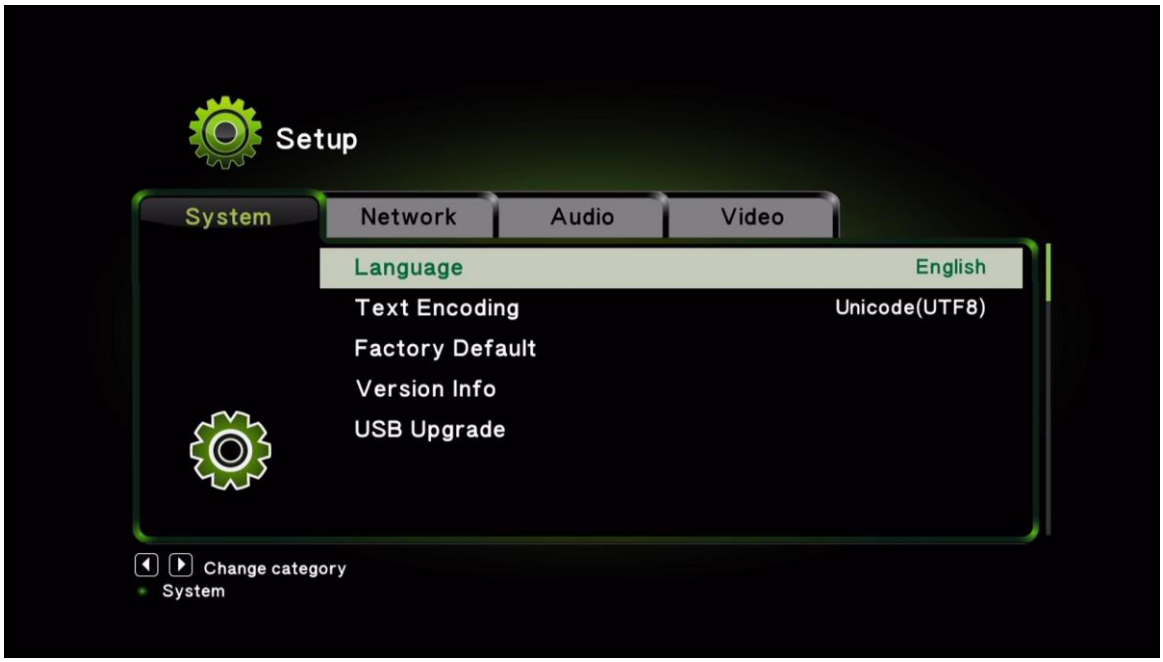
2-4-3-3 Video Setting

You can adjust the Aspect Ratio, TV out video format, and other video settings in the video setup page.



2-4-3-4 System Setting

You can set the OSD language, reset to Factory default, check the firmware version, and do the firmware upgrade in the system setup page.

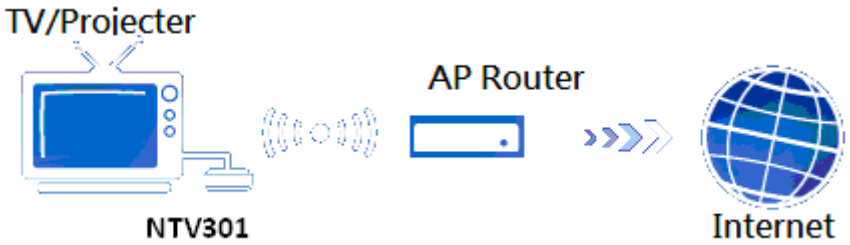


Chapter 3: Router Application

By using a router, it provides a solution for users who have trouble to access online contents while their exist Wi-Fi is occupied to connect to WPCTV3000. The WPCTV3000 allows two different ways to connect to a router : Wi-Fi, or Ethernet LAN, giving the flexibility to Internet connection whichever method is most convenient.

While connecting WPCTV3000 with router, the original SSID will no longer appear in your Wi-Fi list, you will no longer be able to find the original SSID. If you want to use DLNA, NScreenShare, i-Play, you must first connect your PC/Tablet or Smartphone device to the same router.

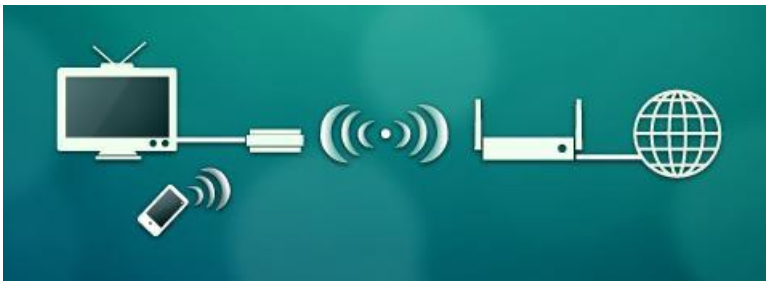
- Wi-Fi connection



Step1: Click and turn on your WiFi connection

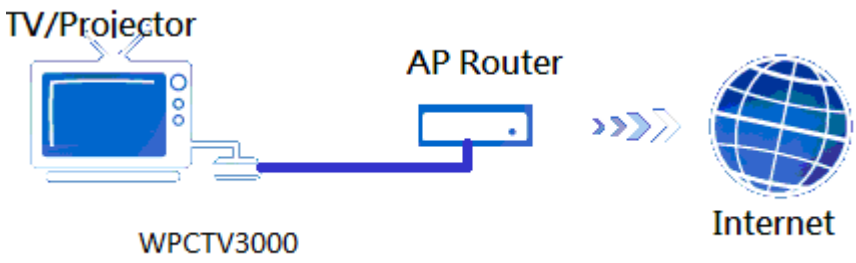
Step2: The Wireless AP list will show on the screen. Please choose the AP you want to connect.

When successfully connected, the UI will change as below:



** Please note! File streaming and screen mirroring performance might be deteriorated by this method due to limited bandwidth.

- Wired Connection



Step1: Connect LAN to the AP router
Step2: WPCTV3000 will auto detect the LAN port.

When successfully connected, the UI will change as below:

** Please note! WPCTV3000 is not a router and must connect to AP/router and not directly to your internet providers WAN connection.

Appendix A: Support Resolution

Interface	Output resolution
HDMI	NTSC,PAL,480p,576p,720p50Hz,720p60Hz,1080i50Hz,1080i60hz,1080p50Hz,1080p60Hz

Appendix B: Support Media Format

Video Format

Format	File extension
AVI	avi
MPEG-1	mpg, mpeg
MPEG-2	mpg, mpeg
MPEG-TS	m2t, tts
MPEG-4	mp4, mp4v, mpeg4, m4v
3GP	3gp, 3gpp
3GP2	3g2, 3gpp2
MOV	mov
WMV	wmv
DVR-MS	dvr, dvr-ms

Audio Format

Format	File extension
MP3	mp3
LPCM	PCM, wav
WAV	wav
MP4	mp4
AAC	AAC
OGG	ogg, oga, ogv

Photo Format

Format	File extension
GIF	gif
JPG	jpg, jpeg
BMP	bmp
PNG	png

Appendix C: Miracast-Ready List

Module
Google Nexus 4
Google Nexus 5
Google Nexus 7 II
HTC New One
HTC One mini
HTC Butterfly
HTC Butterfly S
LG Optimus G L180L
LG Optimus G L-E973
LG Optimus G L-01E
Samsung Galaxy S3
Samsung Galaxy S4
Samsung Galaxy Note2
Samsung Galaxy Note3
Samsung Note 10.1
Samsung Galaxy Tab3 8.0
Samsung Galaxy Tab 10.1
Sony Xperia TX
Sony Xperia T
Sony Xperia V
Sony Xperia Z
Sony Xperia Z1

Sony Xperia AX/LV
Sharp SH-09D
Sharp SH-10D
ASUS PadFone Infinity
CoolPad YL-Coolpad 9960
Xiaomi M2/2A/2S
Oppo Find5

Support Options:

On-Line Diamond Multimedia Support:

http://tickets.diamondmm.com/

On-Line Diamond Multimedia Knowledge base:

http://tickets.diamondmm.com/kb/index.php

Diamond Multimedia WPCTV3000 Product Page:

http://www.diamondmm.com/wpctv3000-diamond-multimedia-wireless-pc-to-tv.html